

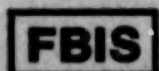
IPRS 75045

31 January 1980

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1974



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

REPORT DOCUMENTATION PAGE		1. REPORT NO. JPRS 75045	2.	3. Recipient's Accession No.																		
4. Title and Subtitle EAST EUROPE REPORT: ECONOMIC AND INDUSTRIAL AFFAIRS, No. 1974			5. Report Date 31 January 1980																			
7. Author(s)			6.																			
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201			8. Performing Organization Rept. No.																			
12. Sponsoring Organization Name and Address As above			10. Project/Task/Work Unit No.																			
			11. Contract(C) or Grant(G) No. (C) (G)																			
15. Supplementary Notes			13. Type of Report & Period Covered																			
			14.																			
16. Abstract (Limit: 200 words) This serial report contains information on economic theory, organization, planning and management; major agreements on and development of trade within CEMA and outside the Bloc; articles on all aspects of the materials, services, machine, electronics, and precision equipment industries; and concepts and attainments in agriculture, forestry, and the food industry.																						
17. Document Analysis a. Descriptors																						
<table border="0"> <tr> <td><input type="checkbox"/> International Affairs</td> <td>Economics</td> </tr> <tr> <td><input type="checkbox"/> Albania</td> <td>Technological</td> </tr> <tr> <td><input checked="" type="checkbox"/> Bulgaria</td> <td>Agriculture</td> </tr> <tr> <td><input checked="" type="checkbox"/> Czechoslovakia</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> German Democratic Republic</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> Hungary</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Poland</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> Romania</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> Yugoslavia</td> <td></td> </tr> </table>					<input type="checkbox"/> International Affairs	Economics	<input type="checkbox"/> Albania	Technological	<input checked="" type="checkbox"/> Bulgaria	Agriculture	<input checked="" type="checkbox"/> Czechoslovakia		<input checked="" type="checkbox"/> German Democratic Republic		<input checked="" type="checkbox"/> Hungary		<input type="checkbox"/> Poland		<input checked="" type="checkbox"/> Romania		<input checked="" type="checkbox"/> Yugoslavia	
<input type="checkbox"/> International Affairs	Economics																					
<input type="checkbox"/> Albania	Technological																					
<input checked="" type="checkbox"/> Bulgaria	Agriculture																					
<input checked="" type="checkbox"/> Czechoslovakia																						
<input checked="" type="checkbox"/> German Democratic Republic																						
<input checked="" type="checkbox"/> Hungary																						
<input type="checkbox"/> Poland																						
<input checked="" type="checkbox"/> Romania																						
<input checked="" type="checkbox"/> Yugoslavia																						
b. Identifiers/Open Ended Terms																						
c. COSATI Field/Group 5C, 13I																						
18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161			19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 133																		
			20. Security Class (This Page) UNCLASSIFIED	22. Price																		

31 January 1980

EAST EUROPE REPORT

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1974

CONTENTS

PAGE

BULGARIA

Laws Associated With Economic Development in 1980 (DURZHAVEN VESTNIK, 28 Dec 79).....	1
Socioeconomic Plan for 1980-1981 State Budget for 1980 Self-Taxation Law Repealed	
First Deputy Minister of Finance Comments on 1980 Budget (Ivan Angelov; IKONOMICHESKI ZHIVOT, 26 Dec 79).....	9
Professor Aroyo Discusses Problem of New Prices (Zhak Aroyo; IKONOMICHESKI ZHIVOT, 26 Dec 79).....	13
New Approach To Development of International Tourism (Zheko Ivanov; IKONOMICHESKI ZHIVOT, 26 Dec 79).....	18

CZECHOSLOVAKIA

Colotka Report on SSR Economy Published (PRAVDA, 19 Dec 79).....	23
November Economic Results Summarized (HOSPODARSKE NOVINY, 21 Nov 79).....	55
Negative Influences Hamper Chemical Industry (Miroslav Smehlik; HOSPODARSKE NOVINY, 7 Dec 79).....	60
Wages, Productivity in Construction Discussed (Ladislav Kostal; SVET HOSPODARSTVI, 22 Nov 79).....	63

CONTENTS (Continued)

Page

ERRATUM: In JPRS 74858, 3 January 1980, No 1968 of this series on p 12 please change, to insert phrase, in the 1st paragraph in line 6 to read: "propelled combines. The CSR will import next year 400 model E 512 combines, 400 E 516 combines."

GERMAN DEMOCRATIC REPUBLIC

Crop, Weather Report Published for November 1979 (D. Krumbiegel; FELDWIRTSCHAFT, Jan 80).....	66
Key 1980 Crops Specified (E. Lange; FELDWIRTSCHAFT, Jan 80).....	69
Meat Supply Shortages Alleviated (Various sources, 13, 20 Jan 80).....	73
West German Commentary, by Michael Mara Pork Supply, Schwerin Bezirk, by E. G. Woehler	

HUNGARY

Reaction to Reorganization at Major Instrument Works (Peter Lovasz; NEPSZABADSAG, 13 Dec 79).....	77
Soltesz Reviews Achievements, Tasks of Metallurgy, Machine Industry (Istvan Soltesz; FIGYELO, 19 Dec 79).....	82
Aims of Agricultural Regulators Explained (Miklos Villanyi; NEPSZABADSAG, 28 Nov 79).....	87

ROMANIA

Self-Financing of State Institutions Suggested (Maria Bodnar; REVISTA ECONOMICA, 5 Oct 79).....	92
Increased Recovery of Secondary Energy Resources Urged (D. Rentea, et al.; REVISTA ECONOMICA, 5 Oct 79)...	97
Efforts Made To Increase Energy Resource Recovery Ratios (Gheorghe Aldea, Alexandru Turta; REVISTA ECONOMICA, 12 Oct 79).....	104

CONTENTS (Continued)

Page

Chemical Sector Development To Stress Efficiency, Research (Adrian Stoica; REVISTA ECONOMICA, 5 Oct 79).....	111
--	-----

Measures To Reverse Production Decline in Fishing Sector (Marin Nitu, Virgil Tipa; REVISTA ECONOMICA, 12 Oct 79).....	118
--	-----

YUGOSLAVIA

Energy Needs, Production in 1980 Noted (EKONOMSKA POLITIKA, 17 Dec 79).....	125
--	-----

Six-Month Results in Transportation Noted (TRANSPORT, Oct 79).....	126
---	-----

Declining, Uncompetitive Position of Shipbuilding Examined (BORBA, 21 Dec 79).....	127
--	-----

Briefs	
Coal Production Plans	129
Bauxite, Aluminum Production	129
Ferrous Metallurgical Production	129
Croatia-PRC Trade	129
Kosovo's Use of Loan	130
Lead, Zinc, Antimony	130

BULGARIA

LAWS ASSOCIATED WITH ECONOMIC DEVELOPMENT IN 1980

Socioeconomic Plan for 1980-1981

Sofia DURZHAVEN VESTNIK in Bulgarian 28 Dec 79 p 1097

[Ukase No 2356, signed by Chairman of the National Assembly of the Bulgarian People's Republic, Comrade Vl. Bonev: "Law on Unified Plan for Socio-economic Development of the Bulgarian People's Republic in 1980-1981"]

[Text] The State Council of the Bulgarian People's Republic, on the basis of Article 84, paragraph 1, and Article 93, section 6 of the Constitution of the Bulgarian People's Republic, decrees publication in DURZHAVEN VESTNIK [Official Gazette] of the Law on the Unified Plan for the Socio-economic Development of the Bulgarian People's Republic in 1980-1981.

Published in Sofia on 20 December 1979 and state seal affixed.

Chairman of the State Council of the Bulgarian People's Republic T. ZHIVKOV

Secretary of the State Council of the Bulgarian People's Republic N. MANOLOV

Law on Unified Plan for Socioeconomic Development of Bulgarian People's Republic in 1980-1981

Article 1. The National Assembly, in keeping with the main socioeconomic goal of the Seventh Five-Year Plan and the basic lines of development up to 1985 and bearing in mind the progress that has been made and the new conditions and goals involved in the accelerated adoption in practice of scientific and technical achievements and in the widest utilization of organizational and other factors to raise efficiency and quality, confirms the following basic indicators of the unified plan for the socioeconomic development of the Bulgarian People's Republic in 1980-1981:

1. The following indicators shall be increased as follows in 1980 over 1979, and in 1981 over 1980:

- a) national income--5.7 percent and 5.5 percent, respectively;
- b) social productivity of labor--5.4 percent and 5.2 percent, respectively;
- c) volume of output of planned industry in comparable prices--6.3 percent and 6.4 percent, respectively;
- d) volume of agricultural output in comparable prices--3.7 percent and 3.1 percent, respectively;

2. the volume of capital investment shall amount to 7 billion leva in 1980 and to 7.48 billion leva in 1981.

Article 2. For a further rise in the people's living standard, the following indicators shall be increased as follows in 1980 over 1979, and in 1981 over 1980:

- 1. per-capital real income--3.0 percent and 3.1 percent, respectively;
- 2. volume of retail trade--4.6 percent and 4.6 percent, respectively.

Article 3. (1) The Council of Ministers shall organize execution of the unified plan for socioeconomic development of the country in 1980-1981.

(2) The Council of Ministers shall include in the lists of projects under construction in 1980-1981, within the limits of approved ceilings, projects accepted by the Standing Commission on Socioeconomic Development and the Legislative Commission and proposed by standing commissions of the National Assembly and by people's representatives.

(3) Ministries, other departments and executive committees of okrug people's councils shall provide the necessary conditions for fulfillment and overfulfillment of the plan by giving special attention to the accelerated adoption of scientific and technical achievements and mastery of new technologies and products, as well as the necessary conditions for the establishment of exemplary organization of labor, the reduction of inputs of raw and other materials and live labor, improvement in the work load of production capacity, complete utilization of the potentialities resulting from the expanded powers of economic organizations, the strengthening of plan discipline and the assurance of a regular tempo in the realization of planned tasks.

Article 4. It is recommended that the National Council of the Fatherland Front, the Central Council of Bulgarian Trade Unions, the Central Committee of the Dimitrov Communist Youth Union, the Central Council of Scientific and Technical Unions and the leadership of other public organizations and movements assist state agencies and economic organizations in launching socialist competition and mass adoption of progressive experience and

in discovering potential reserves for raising efficiency and quality and for successful fulfillment and overfulfillment of the tasks resulting from the unified plan.

Final Provisions

One paragraph only. Execution of this law is entrusted to the chairman of the Council of Ministers.

The law was adopted by the Seventh National Assembly in its 12th session, third meeting, held on 19 December 1979, and the state seal has been affixed.

State Budget for 1980

Sofia DURZHAVEN VESTNIK in Bulgarian 28 Dec 79 pp 1098-1099

[Ukase No. 2357, signed by Chairman of the National Assembly of the Bulgarian People's Republic, Comrade Vl. Bonev: "Law on 1980 State Budget of the Bulgarian People's Republic"]

[Text] The State Council of the Bulgarian People's Republic, on the basis of Article 84, paragraph 1, and Article 93, section 6, of the Constitution of the Bulgarian People's Republic, decrees publication in DURZHAVEN VESTNIK of the Law on the 1980 State Budget of the Bulgarian People's Republic.

Published in Sofia on 20 December 1979 and state seal affixed.

Chairman of the State Council of the Bulgarian People's Republic T. ZHIVKOV

Secretary of the State Council of the Bulgarian People's Republic N. MANOLOV

Law on the 1980 State Budget of the Bulgarian People's Republic

Section I--1980 State Budget of the Bulgarian People's Republic

Article 1. The 1980 state budget of the Bulgarian People's Republic is approved, as follows:

- | | |
|---|---------------------|
| 1. revenues in the amount of | 13,187,200,000 leva |
| 2. expenditures in the amount of | 13,167,200,000 leva |
| 3. excess of revenues over expenditures | 20,000,000 leva. |

Article 2. In the revenue portion of the state budget revenues from the turnover tax, normative installments for the regulation of total income and other receipts from the socialist economy are fixed at a total of 8,701,600,000 leva.

Article 3. In the expenditure portion of the state budget expenditures beyond the amounts provided for this purpose by the economic ministries and other departments from their own resources are fixed as follows:

1. for financing the national economy 5,777,400,000 leva;
2. for the maintenance of socioeconomic activities
--education, science, culture, health care and
social security 5,264,800,000 leva;
including 2,378,800,000 leva for the budgets of
State Social Security and the Council for Mutual
Insurance of the Members of Labor Productive Co-
operatives;
3. for the maintenance of agencies of state author-
ity, state administration, courts and the office of
the public prosecutor 291,200,000 leva.

Article 4. The 1980 republic budget, including interrelationships with the budgets of the people's councils, the budget of State Social Security and the budget of the Council for Mutual Insurance of Members of Labor Productive Cooperatives, is approved as follows

1. revenues in the amount of 9,581,400,000 leva;
2. expenditures in the amount of 9,561,400,000 leva;
3. excess of revenues over expenditures 20,000,000 leva.

Article 5. The consolidated 1980 budgets of people's councils, broken down by okrugs, is approved as follows:

Okrug	(000,000 leva)
	Revenues & ex- penditures in the amount of
1. Blagoevgrad	94.5
2. Burgas	136.3
3. Varna	144.9
4. Veliko Turnovo	110.3
5. Vidin	48.5
6. Vratsa	78.5
7. Gabrovo	66.2
8. Kurdzhali	76.8

(Continued)		(000,000 leva)
Okrug	Revenues & expenditures in the amount of	
9. Kyustendil		70.4
10. Lovech		68.3
11. Mikhaylovgrad		58.6
12. Pazardzhik		82.5
13. Pernik		64.7
14. Pleven		82.9
15. Plovdiv		183.5
16. Razgrad		63.5
17. Ruse		93.1
18. Silistra		55.5
19. Sliven		78.8
20. Smolyan		79.2
21. Sofia Okrug People's Council		500.7
22. Sofia Okrug		95.9
23. Stara Zagora		109.9
24. Tolbukhin		80.2
25. Turgovishte		50.0
26. Khaskovo		83.5
27. Shumen		77.7
28. Yambol		60.1
Total		2,795.0

Section II--Report on Fulfillment of the 1978 State Budget of the Bulgarian People's Republic

Article 6. (1) The report on the fulfillment of the 1978 state budget of the Bulgarian People's Republic is approved, as follows:

1. revenues in the amount of 10,597,200,000 leva,
including revenues from the national economy 7,562,200,000 leva;
2. expenditures in the amount of 10,458,300,000 leva,
including:
 - a) expenditures for the national economy 4,875,600,000 leva,
 - b) expenditures for education, science, culture, health care and social security 3,660,300,000 leva,

including
on the budgets of State Social Security
and the Council for Mutual Insurance of
Members of Labor Productive Cooperatives

1,470,000,000 leva,

- c) expenditures for the maintenance of
agencies of state authority, state ad-
ministration, courts and the office of
the public prosecutor

185,500,000 leva.

(2) The report on the fulfillment of the 1978 republic budget is approved
as follows:

1. revenues in the amount of 7,057,500,000 leva,
2. expenditures in the amount of 7,039,900,000 leva,
3. excess of revenues over expenditures 17,600,000 leva.

(3) The reports on the fulfillment of consolidated 1978 budgets of the
people's councils, broken down by okrugs, are approved as follows:

(000,000 leva)		
Okrugs	Revenues	Expendi- tures
1. Blagoevgrad	72.7	69.9
2. Burgas	103.4	100.6
3. Varna	106.3	104.4
4. Veliko Turnovo	86.7	84.9
5. Vidin	39.1	36.8
6. Vratsa	69.4	66.9
7. Gabrovo	54.2	52.2
8. Kurdzhali	61.7	59.5
9. Kyustendil	60.9	59.1
10. Lovech	56.3	54.9
11. Mikhaylovgrad	52.8	51.0
12. Pazardzhik	71.5	70.0
13. Pernik	44.8	42.9
14. Pleven	78.2	76.5
15. Plovdiv	160.1	157.4
16. Razgrad	49.6	47.3
17. Ruse	72.4	68.8
18. Silistra	46.6	45.0
19. Sliven	53.5	60.8
20. Smolyan	55.7	54.9
21. Sofia Okrug Peo- ple's Council	324.8	311.8

(Continued)		(000,000 leva)	
Okruzs		Revenues	Expendi- tures
22.	Sofia Okrug	79.1	74.3
23.	Stara Zagora	106.5	101.6
24.	Tolbukhin	67.0	64.9
25.	Turgovishte	49.1	47.3
26.	Khaskovo	73.6	70.4
27.	Shumen	59.0	56.7
28.	Yambol	48.1	48.0
Total		2,213.1	2,139.8

Supplementary and Final Provisions

1. The Council of Ministers allocates the republic budget by ministries and other departments and may, when necessary, make changes in the consolidated budgets of people's councils okrug by okrug.

2. Execution of the law is entrusted to the chairman of the Council of Ministers.

The law was adopted by the Seventh National Assembly in its 12th session, third meeting, held on 19 December 1979, and the state seal has been affixed.

Self-Taxation Law Repealed

Sofia DURZHAVEN VESTNIK in Bulgarian 28 Dec 79 p 1099

[Ukase No. 2355, signed by Chairman of the National Assembly of the Bulgarian People's Republic Comrade Vl. Bonev: "Law Repealing Law on Self-Taxation of the Population"]

[Text] The State Council of the Bulgarian People's Republic, on the basis of Article 84, paragraph 1, and Article 93, section 6, of the Constitution of the Bulgarian People's Republic, decrees publication in DURZHAVEN VESTNIK of the Law Repealing the Law on Self-Taxation of the Population.

Published in Sofia on 20 December 1979 and state seal affixed.

Chairman of the State Council of the Bulgarian People's Republic T. ZHIVKOV

Secretary of the State Council of the Bulgarian People's Republic N. MANOLOV

Law Repealing Law on Self-Taxation of Population

(Published in IZVESTIYA [Journal of the Presidium of the National Assembly], No. 12 of 1958; amended, DURZHAVEN VESTNIK, No. 99 of 1963, No. 18 of 1973 and No. 36 of 1979.)

Article 1. The Law on Self-Taxation of the Population is repealed.

Article 2. (1) Moneys from self-taxation of the population that remain unexpended by 31 December 1979 shall be transferred to the Development of Territorial Units Fund of the obshtina (rayon) people's council concerned.

(2) Self-taxation obligations unpaid by 31 December 1979 shall be canceled.

Article 3. The executive committees of obshtina (rayon) people's councils and city councils shall assist organizations of the Fatherland Front, Bulgarian Trade Unions and the Dimitrov Communist Youth Union whenever they are organizing volunteer labor brigades to plan and provide public services and amenities, do greenbelt work and improve the hygienic conditions of individual cities and villages by providing them, at their own expense, with technical guidance, equipment etc.

Final Provisions

1. The law goes into effect as of 1 January 1980.

2. Execution of the law is entrusted to the chairman of the Council of Ministers.

The law was adopted by the Seventh National Assembly in its 12th session, first meeting, held on 18 December 1979, and the state seal has been affixed.

6474

CSO: 2200

BULGARIA

FIRST DEPUTY MINISTER OF FINANCE COMMENTS ON 1980 BUDGET

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 26 Dec 79 pp 1, 3

[Article by Ivan Angelov, first deputy minister of finance: "Increased Financial Possibilities"]

[Text] Several days ago the national assembly discussed and passed the Law on the State Budget of the Bulgarian People's Republic for 1980. Together with the Law on the Plan for the Socioeconomic Development for the Country for 1980 and 1981, passed at the same session, it triggered the legitimate interest of all citizens. As the basic financial plan of the state, the state budget is inseparably tied to the entire national economy. Its revenue depends on quality indicators such as national income, social labor productivity, effectiveness, prices, profits, etc. For this reason, it reflects quite accurately and fully, the basic aspects of the country's economic development. Most of its outlays will be for the further development of the national economy and for financing socio-cultural measures such as education, health care, culture, social insurance, etc., which account for the bulk of the social consumption funds. For this reason it also reflects the basic trends of our social development.

What are the most characteristic features of the 1980 state budget from the viewpoint of our economic development?

The state budget is reflected in the ascending and stable pace of the further development of our national economy. It is on this basis that its volume is rising both in terms of revenue and expenditures. It is formulated on the basis of the directives on controlling economic activities in agriculture, industry, transportation, construction, trade, and international and domestic tourism, which reflect the economic approach to the development of the Bulgarian national economy. The purpose of its use is to drastically accelerate the growth rates of social labor productivity and to create prerequisites for the fast utilization of the latest achievements of scientific and technical progress. Again with a view to strengthening production management on

an economic basis, new methods were introduced for the forming and allocation of the income of economic organizations in all material production sectors. It also reflects the BCP Central Committee and Council of Ministers 10 November 1979 decree on raising wages and other income of the working people and making wholesale and retail prices consistent with the objective conditions governing the development of the economy and its increased effectiveness. All this brought about new forms of relations between the state budget and the national economy.

According to the current rules governing the formation and distribution of the general income as normative payments for controlling general revenue from profits, 2 billion 950 million leva will be paid to the budget. Such payments make it possible to apply more fully the requirement of coordination between the interests of the individual labor collectives of economic organizations and society at large. The more effectively the economic organizations work, the higher will be their revenue and that of the state. Should they fail to fulfill their assignments, however, not only the state will lose but they themselves will be substantially penalized.

Economic organizations will finance their expended reproduction out of their own funds and bank loans. In some cases they will also be able to use centralized resources of the respective economic ministries. Budget financial assistance may be provided only whenever the economic organizations are not earning sufficiently to ensure their normal development in marketing their goods for which mandatory state assignments have been issued. However, capital investments in material production will be budget financed on an exceptional basis only--mainly for geological surveys, road construction, building of water resource projects, etc., which are of particular importance to the country. All other capital investments of the economic organizations will be financed out of their own funds and bank loans. As a result of the new methods governing income forming and distribution, the economic organizations will be interested in achieving better results with lesser investments and in quick outlay returns.

The state budget is linked with the national economy also through its other basic revenue-generating source: the turnover tax. In 1980 it will account for revenues totaling 3 billion 656 million leva. Its implementation will depend exclusively on the production and marketing of consumer goods on the domestic market, which requires the balancing of production plans with consumer demand.

Whereas the firm connection between the income and expenditure parts of the state budget with the national economy in 1980 is finding new forms of manifestation, its ties with the nonproduction area, the social consumption funds in particular, is following a firmly established path--the path earmarked at the historical April party Central Committee plenum,

which focused party policy on concern for the people and ensured the possibility for the high pace systematic improvement of the material and cultural prosperity of the people. The April line was most clearly manifested in the decisions of the December 1972 BCP Central Committee Plenum, which provide a specific comprehensive program for raising the material and cultural standards of the people not only during the Sixth Five-Year Plan but in subsequent five-year plans as well. In accordance with this program a number of important problems of the living standard, related to pensions, care for the growing generation, etc., were systematically resolved.

The implementation of this policy of steadily upgrading the material and cultural prosperity of the people is related to the steady growth of state expenditures for sociocultural measures. In the Sixth Five-Year Plan they reached about 11.8 billion leva, or over 5 billion leva more than were spent in the Fifth Five-Year Plan. In the Seventh Five-Year Plan (based on the old prices) such expenditures are estimated at about 18 billion leva. In the 1980 state budget they will account for 40 percent of the overall amount of outlays, totaling 5 billion 265 million leva. These funds ensure the implementation of the program objectives of the party's social policy. Of these, 1 billion 311 million will be spent on public education; 897 million on health care; 239 million on culture; 135 million on science; and 2 billion 682 million on social insurance and social aid.

Along with the increased income of the working people through wages, budget financing will ensure the growth of their real income through the use of social consumption funds. An idea of the size of such funds may be gained by recalling that in 1952 social consumption funds per capita averaged 39 leva, rising to 420 leva in 1975, or 27 percent of the per capita income. In 1980--the final year of the Seventh Five-Year Plan--that percentage will be considerably exceeded. In 1980 student scholarships alone will be increased by about 50 million leva; free food to children, students, and the bed-ridden in hospitals, by about 100 million leva; and outlays for free clothing, by about 10 million leva. Compensations for temporary disability will be increased by over 50 million leva while funds for monthly supplements for children will be doubled. All in all, outlays for encouraging and assisting the birth rate will total almost 600 million leva. Outlays for pensions will be raised by over 200 million leva.

More such data could be cited but this would hardly be necessary. It is clear to everyone that the forthcoming year will be a year of adamant work for further economic and social upsurge. The successful implementation of the plan for the socioeconomic development of the country and of the state budget for 1980 will be an important prerequisite for achieving this.

Outlays for financing the national economy: 5 billion 777 million 400,000 leva;

Cost of sociocultural measures: 5 billion 264 million 800,000 leva; including:

Public education: 1 billion, 311 million leva;

Health care: 897 million leva;

Culture: 239 million leva;

Social insurance and social aid: 2 billion 682 million leva.

5003

CSO: 2200

PROFESSOR AROYO DISCUSSES PROBLEM OF NEW PRICES

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 26 Dec 79 p 7

[Article by Prof Zhak Aroyo: "Problems of Contemporary Price Setting"]

[Text] By order of the Bulgarian People's Republic Council of Ministers, dated 28 December 1978, the basic principles governing the planned setting of new wholesale prices in our country were determined. Decree No 50 of 10 November 1979 stipulates their application as of 1 January 1980.

The forthcoming price changes apply, first of all, to the means for price setting and, secondly, to price correlations. This is an essential reform which introduces profound changes in the price system of the national economy in our country. It is related with equally important changes in the economic mechanism, initiated first in agriculture and, subsequently extended to foreign trade and industry, and now applied to nearly all national economic sectors. It may be stated with full justification that the application of the mechanism and the manifestation of its main features will be largely determined by the accuracy of the prices and their adaptability to its requirements.

The main characteristics of the economic mechanism now being introduced in our country are the application of greater democracy in planning and national economic management, and the creation of conditions for the full operation of cost accounting and its conversion into a starting point for the development of new effective economic incentives in the national economy. The price reform is subordinated to both characteristics. Its purpose is to contribute to their manifestation and development.

The requirements facing prices today are complex and contradictory. They necessitate not only the improvement of some currently used principles governing their setting and, hence, price correlations, but substantial changes in some of the already established theoretical and practical rules governing price setting, the surmounting of a number of dogmatic views in this area, and the facing of contemporary economic problems. The breath of the new, affecting some basic principles of national economic management, should be fully extended to price setting, in the

spirit of the economic approach. Failure to accomplish this would mean the loss of one of the basic elements of the economic management mechanism and a violation of its main principles. The functioning of the mechanism in all national economic areas and sectors is based on the setting of new prices of goods and the adoption of new principles for their setting.

Today a number of new aspects join the factors of socialist price setting, brought to life by the requirements of technical programs, production intensification, increased participation of the country in the international division of labor, and so on. Our time calls for the approach to price setting to be innovative, reflecting all new manifestations in economic management.

The first among the functions of prices under socialism is that of planned accountability. Its task is to reflect the socially necessary labor outlays for the production of goods, promote their recovery, stimulate their reduction, show production effectiveness, and create prerequisites for its expansion. The tasks are varied, complex, conflicting, and difficult to resolve in specific terms. It would be an extreme oversimplification to consider that since the basic principle governing prices is that they reflect the value of the goods, this resolves all problems related to price setting. Indeed, under socialism, the law of value is given the broadest possible opportunity to become the base of prices or, which is one and the same, for prices to be set in accordance to the value of the goods. However, this does not mean in the least that this process could be applied automatically, and that it would be sufficient to develop a certain method for making prices consistent with the corresponding value for resolving the price setting problem. On the contrary, as long as prices are necessary and exist, their setting will be a creative process taking into consideration a number of factors acting in different directions and with varying strengths. The opposite represents merely statements which are far from contemporary requirements.

The problem is not merely that of taking factors countering value into consideration, i.e., factors which call for prices to deviate from values. It also applies to the determination of the value itself. Under current production conditions the value cannot be established merely within the framework of the national economy. Today the production process is closely interwoven with that of many other socialist and nonsocialist countries. Each commodity contains labor invested domestically and abroad. The foundations of the establishment of the value are broadened to the extent to which both production and the market place broaden their boundaries outside the national economy. Relations developing on the international marketplace are becoming, to an ever greater extent, a factor affecting the national value. It is no longer possible to set prices without taking this into consideration, as it conflicts with the requirements of contemporary economic life. This aspect greatly complicates the processes governing the shaping of values and, hence, price setting.

Contemporary price setting in the socialist countries must be based not only on the national but the international value of the goods. This must be achieved at least to the same extent to which the national marketplace becomes interwoven with the international. That is why in our wholesale price reform as well we are now proceeding not only on the basis of the national production costs but also on the international value and, more specifically, the international prices of commodities. This process follows two lines: First, that of determining production outlays on the basis of factual prices paid for the corresponding goods purchased from foreign countries and, secondly, linking the prices of goods produced in the country with the steady prices in marketplaces with which our trade is factually and traditionally related.

Price setting processes are becoming ever more complex bearing in mind their functions according to which the price must deviate to a greater or lesser extent from its value base. Today this becomes particularly necessary because of the requirement that the price must stimulate quality improvements in commodity output, help in the production and installation of new equipment, restrict the consumption of materials, direct producers to manufacture goods in demand, and so on. A number and a variety of "impulses" may be given to producers through prices. Such impulses are frequently contradictory and require a variety of price dynamics. In each separate case a very careful approach is needed in assessing the overall impact of the price. Suffice it to point out, for example, the reflection which a price may have on the development and the utilization of new equipment.

An essential aspect of price setting is the requirement that prices must help to establish a balance between supply and demand and between income and expenditures. This aspect directly affects the setting of retail prices. However, it is important in terms of wholesale prices as well. Occasionally, it is groundlessly stated that under socialism creating a balance between supply and demand through prices is unnecessary, for the economy is planned. Therefore, a balance is created in the course of production planning. Inquestionably, a balance must be created in production, as this is the purpose of its planning. However, it cannot be denied that there are frequent cases in which in the course of developing the necessary balance we must seek the help of prices. The production process always includes some "limitations" which block the production of the necessary quantity of required commodities. This applies most frequently to natural resources, even though other factors exert an influence as well: shortage of foreign exchange, lack of corresponding equipment, scarcity of some goods on the international market, etc.

In such cases the "sensibly" set price could direct the purchaser to other goods, substitutes, saving of raw and other materials, and so on.

A particularly important aspect in retail price setting is the establishment of a balance between population income and expenditures. This calls for raises in wages and other population income to be paralleled by a corresponding increase in consumer goods and the improvement of their structure. The balancing of population income and expenditures today is greatly complicated by the development of international tourism. Occasionally, the price mechanism may have to be used in controlling it. Our government was forced to act in that manner in amending some retail prices in its 10 November 1979 decree. The ratio between the prices of goods in our country made it very advantageous for the foreigners to purchase goods whose output was subsidized by the budget. This undermined the effectiveness of foreign tourism in our country, deprived the population of valuable products, and disturbed the market. This phenomenon had to be corrected by raising the prices of some consumer goods with a proper income compensation. The price correction makes it possible to limit consumption by foreigners and channel some income to other goods, thus improving the balance between income and expenditures and between the amount of money and goods in circulation as well as their structures.

Raising the "responsiveness" of prices and their possibility to react to production and market changes and to reflect them are very substantial aspects in contemporary price setting. This aspect is not only difficult in terms of practical application but has triggered a number of arguments among economists. Most frequently appeals are made to ensure price stability and "firmness," substantiating this by calling it an advantage offered by socialism. Yet, what kind of advantage could a fixed price offer when production conditions change steadily? It is stated that a price subject to change loses its quality as a planning tool. However, is it admissible for a price to be subordinate only to its planning function? This would mean to ignore its importance as an incentive and its role to reflect changes in production and production outlays, and changes in international prices or, generally speaking, all other very complex functions performed by prices under socialism. We must not reject the possibility and need for price changes whenever changes occur in production and the marketplace, but seek means for the fullest possible combination of stability and "flexibility" in the functioning of prices. This is indeed difficult yet necessary if prices are to be used as a means for influencing and reflecting objective production and marketing conditions.

A number of arguments may be heard also concerning the possibility for prices to be set freely within certain limits. Sometimes the socialist nature of the production process and trade are forgotten and methods for free price setting are suggested which could lead only to economic chaos. Let us emphasize that the planned nature of the national economy calls for the mandatory planned setting of prices as well. Any other suggestion conflicts with objective requirements. Let us indicate something else as well, however: the fact that the centralized nature of price setting must be most precisely consistent with planning centralism. A coordination

must exist between these two sides of national economic management. The democratization of planning, the reduction of a number of indicators in the planning process, and the broadening of the rights of producers require a corresponding democratization of price setting processes and a restriction, in this area as well, of the number of centrally set prices. This means increasing the possibility to use ceiling prices with a certain freedom in their specific setting, broadening right reciprocally to set prices among economic organizations under state control, and so on. These methods are already being applied in agriculture and in some other production and trade sectors.

Price setting and prices are elements of the economic mechanism and substantial factors of the economic approach in national economic management. Today they are actively used and must be used in economic management in accordance with their socialist content and functions. Their improper application may violate some of the basic aspects of the economic mechanism, hinder the total application of the economic approach, and trigger groundless incentives and unexpected consequences. This should not be allowed to occur.

5003

CSO: 2200

NEW APPROACH TO DEVELOPMENT OF INTERNATIONAL TOURISM

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 26 Dec 79 pp 1, 12

[Article by Zheko Ivanov, deputy chairman of the State Committee for Tourism: "A New Page in the Development of the Tourist Industry"]

[Text] As of 1 January 1980 the economic organizations and subunits in the International and Domestic Tourist Industry Sector will be guided by specific rules for controlling tourist activities under the conditions of the systematic application of the requirements of the economic approach and the self-financing principles. This opens a new page in the development of international and domestic tourism and a new stage in upgrading the effectiveness of this sector of exceptional importance to the national economy.

As we know, as of 6 November 1979 the Council of Ministers passed Decree No 52, approving the directive on specific rules governing tourist complexes, foreign tourist organizations, and tourist subdivisions of the International and Domestic Tourist Industry Sector. The directive reflects the essential general stipulations included in the mechanism of the management of economic organizations and production units in industry and the principles of the rules governing the activities of foreign tourism organizations. At the same time the directive combines the specific nature of the International and Domestic Tourist Industry Sector with the characteristics of the activities of the tourist complexes and foreign tourism organizations--the Balkanturist Main Directorate, the Korekom VTO [Foreign Trade Organization], and others.

The objective stipulations governing the systematic application of the economic approach in the management of the national economy, and the essence and basic principles governing this approach are already quite familiar. Against the background of the general stipulations governing the extensive application of the principles of democratic centralism in planning and management, converting economic organizations and their branches to total cost accounting, the wage fund, based on results, and so on, a number of characteristics appear in the International and Domestic Tourist Industry Sector, successfully regulated with this directive.

What are these characteristics? What are the most characteristic features of the specific rules governing the management of economic organizations and branches in the International and Domestic Tourist Industry Sector?

The specific feature governing economic organizations in tourism stems from the characteristics of the sector and is essentially reflected on the mandatory plan indicators, price setting, trade and foreign exchange, and relations with superior organizations and settlement systems. Particularly noteworthy are the following several items:

First: The activities of economic organizations and branches in the International and Domestic Tourist Industry Sector has a specific foreign exchange orientation. This means that their main task is to offer tourist services mainly to foreigners coming from socialist and capitalist countries. Such offers must be steadily improved and the quality of tourist services and the use of established material facilities upgraded.

These aspects are reflected in the directive by including in the approved indicators of tourist economic organizations, above all, "foreign exchange balance and foreign exchange income, based on origin," "utilization of available beds," followed by the remaining mandatory indicators such as "ceilings on personnel size," "ceilings for supplies with raw materials and materials. . . ," and "commodity stocks by basic group of comestible and noncomestible goods."

The stipulated indicators grant extensive freedom and flexibility in the formulation of the plans of the tourist complexes for they create conditions for maneuverability based on the possibilities for basic tourist services, foreign currency exchanges, trade, and so on.

Second: The economic approach to the management of tourist complexes offers reliable levers for drastically improving tourist activities and increasing foreign exchange income by increasing the number of additional services, and raising the level of tourist facilities and service standards. The directive on the specific rules for managing tourist economic organizations and internal regulations governing the organization of cost accounting and wages closely link individual and collective interests with specific economic results and the providing of comprehensive and model tourist services to all customers in tourist institutions. Thus, in order to ensure the necessary resulting wage fund, the collectives of tourist complexes must reach a certain level of trade and marketing, not only in terms of general volume but on a differentiated basis as well, for food and beverages and, within groups of meals for meat and vegetarian meals--for alcoholic and nonalcoholic beverages, and so on.

The growth of the consumption income compared with the preceding year is made dependent on two factors: On the one hand, it must grow by 0.4 percent for each percentage point of increase social labor productivity; on

the other, again by 0.4 percent for each percentage point of the growth of foreign exchange income. Naturally, should labor productivity and foreign exchange income decline, so will, correspondingly, the consumption income and the wage fund.

These stipulations as well as the stipulations on consequences stemming from the eventual lack of funds of organizations and their branches will, unquestionably, determine another attitude in the implementation of the various tasks related to tourist services in resolving the various problems related to upgrading the effectiveness of international and domestic tourism. They will trigger the appearance of interesting initiatives and application of new work methods. They will encourage the rational utilization of resources and intensification of self-control, and so on.

Third: Along with the great economic autonomy granted the tourist complexes with the new directive (direct settlement of accounts with the budget, the bank, and other creditors, the right to engage in foreign tourist activities through its units, the setting up of a large number of its own funds, etc.), administrative and financial levers have been granted to the State Committee for Tourism in the implementation of state policy in the field of international and domestic tourist industry.

The development of tourism is a stage in which the intensive utilization of the established material and technical tourist facilities, and the modernization, reconstruction, and the improvement of the infrastructure are equally important. Considerable investments are needed in order to meet to a maximum extent the requirements of the tourist market and follow new directions in the development of specialized tourism (balneology, hunting, congresses, etc.). Some of them are beyond the possibilities of individual tourist complexes, particularly when they are not directly linked with the development of seashore recreation, mountain, and hiking tourism. Furthermore, a number of common activities exist, whose local organization is being abandoned because of economic, technical, and other reasons: the development of a single reservation system for hotels throughout the country, the organization of international and domestic publicity, etc.

These and some lesser considerations have resulted in some solutions related to the specifically tourist economic mechanism:

According to Article 3 (2) of Council of Ministers Letter No 52 of 1979, ". . . The economic organizations within the International and Domestic Tourist Industry Sector shall deduct for payment to the State Committee for Tourism two percent of their gross income. . . ;"

Article 11 (3) of the same decree regulates the payment of funds to the State Committee for Tourism, totaling 60 percent of the leva equivalent

of the differential between the foreign exchange income from the sale of goods and their value at purchase prices, minus the trade discount to the Korekom Foreign Trade Organization;

Individual articles in the directive (18 (4), 23 (4), and 27 (2)) mandates to the tourist complexes to make payments to the Expansion and Technical Improvements fund of the State Committee for Tourism, amounting to one-half of the sum in excess of 50 percent of the payments made for controlling the gross income, 50 percent of the amortization withholdings for restoration, and 30 percent of the withheld foreign exchange amounting to 1 percent of current foreign exchange income from the activities of the tourist economic organization.

Using such centralized funds, the State Committee for Tourism will be able to build new tourist complexes or individual sites, help tourist complexes in their investment activities related to improving their material facilities, meet general expenditures for a variety of measures applicable to all complexes, and provide financial assistance to individual units experiencing economic difficulties.

Fourth: Relations between tourist economic organizations and their branches, on the one hand, and settlement systems on whose territory they operate, are reorganized. The stipulations of the mechanism fully reflect the programmatic instructions issued by Comrade Todor Zhivkov, first secretary of the BCP Central Committee and chairman of the Bulgarian People's Republic state council, on the role and tasks of settlement systems in the development of international tourism and the related specific obligations of tourist organizations. The section "Relations With Settlement Systems and Developed Tourist Functions and with Private Owners governs the various aspects of the economic approach in this area and provides for administrative levers aimed at achieving coordination and higher effectiveness in tourist activities.

Article 64 of the directive on the specific regulations governing the management of economic organizations and branches in the International and Domestic Tourist Industry Sector demands of the tourist organizations that they coordinate their draft counterplans and engineering plans with the respective executive committees and obshtinas people's councils of settlement systems with developed tourist functions. This will create conditions for improving coordination and uniting the local efforts to enhance the level of tourist facilities and comprehensive services offered foreign and Bulgarian tourists.

In order to increase the economic interest of the obshchina people's councils in the results of tourist activities conducted on the territories of their settlement systems, a number of fund sources have been stipulated, such as:

Withholdings totaling one percent of the general income of the tourist economic organizations and branches for the Development of Territorial Units Fund;

Normative payments made by tourist economic organizations for controlling the general income;

Fifty percent of the funds collected as resort fees;

Thirty-five percent of commissions earned for renting private homes, cottages, or other premises used by the tourist industry;

Fees from beaches and others.

At the same time, the obshtina people's councils of settlement systems with developed tourist industry functions will use 80 percent of their income from tourist activities for building and maintaining the tourist infrastructure of local significance and one of a kind tourist sites. This will develop a bilateral interest and harmony in the activities of tourist economic organizations and settlement systems. Unquestionably, this will contribute to the accelerated solution of problems of tourism in Bulgaria.

The new economic approach in the management of tourist economic organizations and branches is all-embracing. In order to characterize it on the basis of the few basic features indicated here, it must be studied in detail, and profoundly interpreted, with a view to its fast and creative application in the work of tourist units. The new stipulations must be reflected in the formulation of the 1980/81 plan. Amendments must be made to all internal regulations, rules, and the style and work method of all managers and specialists in the International and Domestic Tourist Industry Sector. A radical change must be accomplished in thinking and specific activities: greater initiative, creativity and persistence, struggle for higher foreign exchange income, for high level tourist services, and for higher effectiveness of international tourism.

5003

CS0: 2200

COLOTKA REPORT ON SSR ECONOMY PUBLISHED

Bratislava PRAVDA in Slovak 19 Dec 79 pp 1, 3, 4

[Report of the CPSL Central Committee Presidium, presented by Premier Peter Colotka at the session of the CPSL Central Committee]

[Text] Esteemed Comrades:

In accordance with the instructions of the CPSL Central Committee Presidium, I am submitting to the Central Committee a report on the 1980 plan for the development of the Slovak economy, and on the tasks of the state and economic organs and organizations, as well as of the social organizations, for securing this plan, as outlined in the resolutions adopted by the 14th session of the CPCZ Central Committee.

The CPCZ Central Committee evaluated objectively, frankly and critically the development of our economy during the past four years. It designated the problems on which we must concentrate our attention so that we may fulfill the plan for the coming year and complete the most effectively the entire five-year period, ensuring thereby the conditions for a smooth transition to the Seventh Five-Year Plan.

The results of fulfilling the Sixth Five-Year Plan to date indicate that the Czechoslovak economy has been developing successfully, despite the intensifying external economic conditions. The growth of output in industry, construction and agriculture enables us to expand the technical base of production, to raise the living standard and to improve the population's social security. Simultaneously, the CPCZ Central Committee pointed out that in our economy, together with the favorable results and trends, there still are many problems and shortcomings. In accordance with the needs of our development, we still have been unable to fully implement our strategy of improving the effectiveness and quality of our entire work.

The basic developmental trends of the Czechoslovak economy--its positive aspects as well as its problems--are reflected also in the results that we achieved in the Slovak Socialist Republic during the past four years.

In the Sixth Five-Year Plan we intentionally set demanding tasks so that, by creating resources and raising effectiveness at a faster rate, we

could participate in solving the problems of the entire Czechoslovak economy and could ensure a further rise in the material and cultural level of our people. We adopted these objectives with the determination to fight persistently for their fulfillment, even under the complex conditions. During the entire elapsed period, therefore, the CPSL Central Committee mobilized and directed the efforts of the communists within the party, state, economic and social organs and organizations, for the realization of the economic and social program adopted by the 15th congress, and for the fulfillment of the resolutions of the CPCZ Central Committee that spelled out the procedure for attaining the set objectives.

This is our intention also at today's session when we are discussing the plan for the final year of the Sixth Five-Year Plan. The tasks that we are setting are in the most immediate interest of our workers, of our blue-collar workers, farmers and working intelligentsia. Indeed, it is in the interest of our entire society that we achieve in the best possible way, by reinforcing the positive aspects of the development to date and by overcoming the existing problems, the primary objective of our party's policy, i.e., to raise further our citizens' standard of living and to provide greater social security for them.

In pursuing this objective we start out from the realistic capabilities of the unified Czechoslovak economy, and from the opportunities that stem from the intensification of cooperation with the Soviet Union and the other socialist countries. At the same time we are relying also on the many favorable results that we have achieved in Slovakia during the past four years. These include first of all the relatively high rate of overall economic growth. In comparison with 1975, the social product this year will be 20.4 percent greater. In this way Slovakia's share in the formation of national resources will increase from 28.6 percent to 29.8 percent during the mentioned four years, whereby the congress directive to raise Slovakia's contribution toward increasing the economic potential of the CSSR will gradually be fulfilled.

Industrial output in the SSR increased by 27.1 percent since 1975. Generally also the planned development of industry's branch structure, the higher share of the engineering and chemical industries, and the faster growth rate of the key developmental programs are being fulfilled. Thereby the enterprises in Slovakia are increasing their participation in supplying the needs of the entire Czechoslovak economy, and in the international division of labor and cooperation within CEMA. We have made progress also in developing the branches based on the use of domestic raw materials, e.g., the woodworking industry, the building materials industry, and the output of materials stemming from the development of the chemical industry and of the petrochemical industry in particular.

Despite two poor harvests, the farm output increased by 8.8 percent during the past four years as compared with the first four years of the Fifth Five-Year Plan. Within this the increase in the output of crop production was 5.3 percent.

The volume of capital construction in 1976-1979 will be higher by 48 billion korunas or 38.5 percent than in 1971-1974. Thus fixed capital in the Slovak economy increased by nearly 162 billion korunas or 27 percent. We commissioned a number of important production capacities, including the first generating unit of the V-1 nuclear power plant in Jaslovske Bohunice, the Liptovska Mara hydraulic engineering project, 550,000 square meters of floor space in engineering, and Slovnaft's petrochemical complex. Many capacities were added also in the other branches of production.

The material base of the nonproductive branches likewise expanded: 160,000 square meters of floor space were added to the retail network, 1450 hospital beds, places for 22,500 kindergarten pupils, and more than 2000 classrooms in the basic and secondary schools. By completing the construction of 180,600 housing units, we have provided more new housing units in four years than during the entire Fifth Five-Year Plan.

Compared with 1975, the number of workers in the Slovak economy increased by 112,000 persons. At the same time, the proportion of specialists with higher or secondary vocational education increased considerably. As compared with the preceding survey in 1973, their number increased by 31 percent.

On the whole, the standard of living proceeded to rise continuously. Per capita income this year is 20,753 korunas, an increase of 2,902 korunas over the end of the Fifth Five-Year Plan.

Within personal material consumption, particularly the consumption of more-nutritious foods is continuing to rise at a rapid rate. Sales of industrial durable goods, particularly of appliances, recreational equipment and motor vehicles, have likewise increased. As can be seen, the planned objectives are being fulfilled on the whole also in this area.

In social consumption, several tasks are being realized at a faster rate than what the Sixth Five-Year Plan calls for. Kindergarten enrollment, for example, already amounts to 76.9 percent of the age group in question. This is higher by 1.8 percentage points than what the Sixth Five-Year Plan set for the entire period. We are fulfilling gradually the program for implementing the new system of education and vocational training. The number of students enrolled in secondary vocational schools, vocational institutions and higher educational institutions is rising.

From this brief outline it is evident what progress we have made and what convincing results we have achieved during the past four years. At the same time, we know that already at the start of the Sixth Five-Year Plan and throughout its entire course we had to counter the effects of the development of world-market prices, unfavorable from our point of view, and that in all areas we had to overcome many obstacles and solve complex problems.

Everyone who helped us achieve these favorable results through his good work, who contributed his brains, energy, creativity and conscientiousness to our common work, may feel satisfied.

We must appreciate highly the work of the party organs and organizations that led the struggle for the fulfillment of the set objectives. We appreciate the work of the managing officials who solved the problems actively and creatively within the state and economic organs, in production, research, education, culture, health care and other areas. We appreciate the commitment of the officials and members of the Revolutionary Trade-Union Movement, Union of Socialist Youth, Union of Slovak Women and other social organizations, of the members of the brigades of socialist labor and of the innovators and inventors who are paving the way for scientific and technological progress and are setting an example in creative work. We fervently thank the hundreds and thousands of rank-and-file workers in production, the blue-collar workers, cooperative farmers, members of the intelligentsia, women and youths, all those who have demonstrated their dedication and conscientiousness in their everyday work. They all share the credit for our achieved results.

Despite these favorable results, we are not fulfilling the set tasks everywhere with equal success. Partially for objective reasons, but also for subjective shortcomings in management, there are certain departures from the Sixth Five-Year Plan in some areas of production and other sectors of social activity. But it should be emphasized that we are maintaining the overall concept of the Sixth Five-Year Plan, which will remain the basic orientation of society's socioeconomic development also in the coming year.

Concerning production, the most serious departure has occurred in agriculture and, in conjunction with it, also in the food industry. Bad weather unquestionably played a role in this. But we must also recognize the problems that stem from shortcomings in management as well as directly in production, in the individual cooperatives and on individual farms. The imbalance between crop production and livestock production has intensified because we have been unable to achieve the planned production of grain, fodder, sugar beets and potatoes. To maintain the high consumption of meat and other livestock products, it was necessary to import a significant quantity of feed, particularly feedgrain. This, together with the nonfulfillment of the export tasks, particularly for the export of sugar, significantly worsened the relationship between the agricultural complex and foreign trade.

Capital construction, particularly its structure, likewise departed from the tasks of the Sixth Five-Year Plan. During the past four years, 9.1 billion korunas' worth of capital construction was not completed on projects with estimated costs exceeding 2.0 million korunas. Construction work accounts for a significant proportion of this shortfall. For shortcomings in the preplanning and planning preparations and in the

concentration of the building contractors' capacities, for delays in supplying machinery and installation work, and for shortcomings in the final phase of capital construction, through the end of 1978 there were 29 important investment projects in industry that were not commissioned on time. This year also the time limits for the commissioning of ten projects, all of which have been classified as obligatory tasks of the state plan, seem to be in jeopardy. These include such production capacities as the polypropylene staple unit at the Juraj Dimitrov Chemical Works, the Chemiceluloza plant in Zilina, the Lumber Combine in Polomka, and others.

On the other hand, investments in minor projects under 2.0 million korunas, and in machinery not included in the estimated costs of the projects under construction, are being far exceeded. This would not bother us if thereby construction capacities and materials were not being diverted from priority projects, and if the economic production units and enterprises were directing these resources primarily to complete reconstruction, modernization and innovation programs that yield a quick return.

The government, the Slovak Planning Commission, the Ministry of Development and Technology, and also the branch ministries have not opposed decisively enough the rise in the volume of unfinished investments, which has developed differently from the planned objectives. Because individual large-scale capital construction projects are not on schedule, and due to the substantial rise in the estimated costs of the construction projects, in controlled capital construction in 1979 the volume of unfinished investments will be 10.4 billion korunas higher than the level anticipated in the Sixth Five-Year Plan. Therefore we will have to consider all new starts more strictly and control more closely the cost overruns that disrupt the balance of our resources and needs in the investment plan. In this respect the comrades at the Slovak Planning Commission and at the Ministry of Development and Technology will have to proceed more strictly in evaluating the prerequisites for including specific projects in the plan.

We will adopt a more radical solution in the plan for next year. While the total volume of investments will be 5.5 percent higher, new starts will be lower by roughly 20 percent as compared with the directive. In this way we wish to achieve that the contracting capacities of the construction industry and engineering, and of the planning and design institutes, will be concentrated on fewer projects, which will permit faster progress in capital construction and shorter construction time.

In industrial output the basic branch proportions have been maintained on the whole. A more serious departure occurred in the structure of final production, in the specific product structure of the industrial output. The greatest shortfalls in plan fulfillment during the past four years occurred in deliveries for market allocations, particularly by enterprises in general engineering, the consumer goods industry, and the food industry.

Structural problems intensified in 1979 when particularly the disruptions in the supply of fuel and power influenced unfavorably the overall continuity

and rhythmicity of production, and thereby also the entire process of material-technical supply. Inventories rose during the year, but--unfortunately--not in the structure that the needs of the economy and of the population required. Within the CPSL Central Committee Presidium and the government, we emphasized repeatedly that our primary concern must be to fulfill all specific deliveries in the quantities, assortment, quality and time limits stipulated in the economic contracts between the production enterprises and the organizations of domestic trade and foreign trade. It is intolerable to expend raw materials, fuels, power and wage resources on products that frankly are unnecessary. Emphasizing this again as we enter the final year of the Sixth Five-Year Plan, we demand that the ministries, economic production units, and also the territorial party organs and organizations thoroughly enforce this approach when evaluating the work of the enterprises.

The workers in production and trade must realize that our people will increasingly demand new, technically advanced and fashionable products of good quality. We discussed these problems at the seventh session of the CPCZ Central Committee and at the session of the CPSL Central Committee, devoted to the further development of material consumption and services. So far, however, the adopted resolutions have not produced the desired effect. We must insist that the ministries of trade, industry, and agriculture and food, and the production and consumer cooperatives--in cooperation with the federal ministries--resolve these problems with much greater insight and eliminate more forcefully the shortcomings in domestic trade.

During the entire elapsed period we have strived to achieve that the Slovak economy contribute in the desired extent toward the development of the Czechoslovak economy's foreign-trade relations. We have fulfilled the Sixth Five-Year Plan's original export targets in physical terms, and in relation to the socialist countries we have even overfulfilled them. In view of the development of world-market prices, however, in the annual plan we were forced to adopt stepped-up targets that we have been unable to fulfill satisfactorily. The greatest lag is at engineering enterprises, in the same way as for entire Czechoslovakia. Their shortfall could not be offset even by increased exports of lumber and ferrous metals. Obviously, this trend cannot continue. The ministries, economic production units and enterprises, in cooperation with the foreign-trade organizations, must intensify their efforts to sell on foreign markets finished products that incorporate a higher proportion of skilled labor.

The challenging tasks of making the reproduction process more effective, which we have set to overcome by active measures the more-difficult external conditions and to be able to further raise the living standard, are not being fulfilled to the desired extent. Industrial enterprises and particularly the construction enterprises have not achieved during the past four years the planned rise in labor productivity, even though the machinery and equipment per worker has increased at a faster rate. Average wages will be higher than what we anticipated in the plan. The struggle to reduce material costs and total costs has not been waged forcefully enough. Even

though we are making progress in comparison with the preceding period, in the formation of profit the economic sphere is falling short of the Sixth Five-Year Plan's targets by 6.4 billion korunas or 7.4 percent.

When we critically point out the shortcomings that we are able to overcome, this should not be the cause for any pessimism that is intolerable in our thinking and actions. By analyzing the problems and shortcomings we wish to develop solutions and to clarify on what we must primarily focus our political and economic-organizational work.

Throughout the entire elapsed period, and in this especially difficult year in particular, the results in the individual branches and at individual enterprises differ considerably. For example, roughly one-half of the enterprises have been able to make up for their lag at the beginning of this year and to fulfill all their basic indicators. These enterprises include the SNP [Slovak National Uprising] Plant in Ziar nad Hronom, the Wilhelm Pieck Chemical Works in Novaky, Plastika in Nitra, Bucina in Zvolen, Pleta in Banska Stiavnica, the Slovak Appliance Works in Miava, Tesla in Liptovsky Hradok, the Wire Mills in Hlohovec, the Spring and Engineering Works in Brezova, and many others.

However, we have also enterprises where the shortfalls in fulfilling the targets did not shrink but widened during the year. These include, for example, Tatramat in Poprad, ZDA [expansion unknown] in Partizanske, the West Slovakia Cement and Lime Works in Rohoznik, and Light Building Materials in Bratislava. We are aware that this was due in part to a number of unfavorable factors, to problems in material-technical supply and marketing, etc. But it is likewise certain that these results reflect also the differences in the level of economic-organizational and party-political work. The difficult conditions were a test of how the managing officials were able to solve the arising problems, in due time, continuously and persistently. The results also are an indication of how well the trade-union and other social organizations, jointly with management and under the leadership of the party organizations, were able to develop the workers' initiative.

We must learn from this year's experience. We demand from the competent ministers, directors general and enterprise directors that in the comprehensive analyses of economic activity in 1979 they thoroughly analyze not only the achieved results, but also the forms and methods of management, intraenterprise planning, and the observation of planning, technological and labor discipline, and that from all this they draw conclusions for improving their work.

Formation of Resources Must Be Faster

Dear Comrades, preparation of the 1980 plan was very complicated, particularly in view of this year's results and the anticipated further development of prices on the foreign markets. Admittedly, progress in this work was hampered also by the fact that the draft plans submitted by the intermediate levels of management departed from the approved directive far more

this year than in years past. Therefore the party presidium and the government adopted a special directive for revising the drafts, and in principle this directive has been observed in the plan.

The state plan for the development of the Czechoslovak economy in 1980, discussed at the 14th session of the CPCZ Central Committee, places emphasis on harmony between the living standard's rise and the formation of society's resources. The rate at which resources are formed is expected to be faster than this year, due particularly to the higher value of raw materials, fuels and power. In the interest of our balance of payments, the plan anticipates that the expenditure of national income will rise at a slower rate than its formation. This, of course, will be reflected also in the slower growth rates of personal consumption, social consumption and capital construction, as compared with the average for the past four years.

In agreement with the national plan, we anticipate that next year the formation of resources will be accelerated also in Slovakia. This will be enhanced by a 5.2-percent rise in industrial output and by a resumption of the farm output's growth rate, which will increase 8.4 percent. The social product's planned 4.7-percent rise is to be higher by one percentage point than nationally. In accordance with the directives of the 15th party congress, we will thus continue to increase our participation in the formation of nationwide resources, since Slovakia's share of the social product will slightly exceed 30 percent.

In industry we will continue to implement the planned structural changes, to develop at a faster rate particularly the output of engineering and, in all branches, the key developmental programs. A substantial proportion of the increase in final output will be directed to supply the needs of the domestic market and to expand the export allocations.

One of the decisive tasks is the adequate and continuous supply of the economy with fuel and power. By fulfilling the measures adopted within the party and state organs, nationwide we can expect to be better prepared for the winter, particularly in the decisive coal-mining centers and at the power plants. We have larger stocks of coal than we had last year.

We appreciate the active approach of the comrades at the Bridge Works in Brezno, the May 1 Rubber Works in Puchov, and at other industrial and construction enterprises and national committees that are supplying equipment and construction work and are recruiting manpower, to help create conditions for fulfilling the tasks in the coal basins. We expect them to exert maximum effort also in 1980, so as to honorably fulfill their tasks in conjunction with ensuring the mining of coal and the generation of electric power, and to contribute thereby toward the development of Czechoslovakia's fuel and power base.

We are dissatisfied that the output of the coal and lignite mines in Slovakia shows a considerable lag specifically this year, amidst the present tight fuel situation. Not even in the plan for 1980 were we able to

include the targets set by the directive. This is due to the fact that the mining-engineering preparations for coal mining, and capital construction were neglected in the previous years at this economic production unit where a sufficient lead is required, the more so because here it is necessary to solve complex problems to overcome the difficult tectonic conditions and to attain higher recovery from the thick seams. After all, it is intolerable --economically and thereby also politically--that complete utilization of the Novaky power plant had to be ensured by transporting a considerable volume of steam coal from North Bohemia, which further worsened the traffic situation on the main railroad line. We believe it is essential that top officials of the General Directorate of Coal and Lignite Mines, with the effective assistance of the Federal Ministry of Fuel and Power, quickly resolve these shortcomings and create conditions for coal mining under the Seventh Five-Year Plan. In conjunction with this it is necessary to solve, with sufficient lead time, the relocation of civil-engineering networks, the diversion of streams, and the construction of housing and other structures. At the individual mines it is necessary to systematically support the development of the workers' initiative, which at this economic production unit was reflected favorably in years past in the collectives headed by Comrades Omarka and Cukan, heroes of socialist labor, and in other BSP [brigades of socialist labor] and competing collectives.

We expect the workers in the power industry to successfully continue in their efforts to suitably prepare and ensure the continuous operation of the entire power system, and to reduce the specific coal consumption per kilowatt-hour. All enterprises and organizations must help them by observing in a disciplined manner the power-consumption diagrams.

Highly responsible tasks confront the power-industry workers, and also the construction workers and other suppliers, in conjunction with the further expansion of Slovakia's electric power base. Special attention must be focused on the successful startup of the second generating unit at the V-1 nuclear power plant in Jaslovske Bohunice. The first generating unit saves approximately 2.0 million tons of coal a year, and the commissioning of the second generating unit will double these savings.

In the plan we anticipate that the first 110 MW of generating capacity at the Cierny Vah pumped-storage power plant will be placed in operation by the end of next year. We know that the worker collectives of the Vahostav, Mine Construction, and Metallurgical Installation enterprises, and of the other contractors, have to overcome various difficulties this year. But we are confident that next year they will master their tasks with honor, in full awareness of this project's significance.

We are likewise convinced that our construction workers, the Hydrostav National Enterprise and its subcontractors such as Armabeton of Prague and others, will continue to successfully fulfill their tasks on the construction of the V-2 nuclear power plant. For them this assignment is the more demanding because they, together with Vahostav and other enterprises, will

work simultaneously on the construction of the Gabčíkovo-Nagymaros system of hydraulic engineering structures where, among other things, it is essential to proceed on target, in accordance with our contractual obligations with the Hungarian People's Republic.

Parallel with developing the fuel and power base, we are directing the work of all managing organs, party organizations, worker collectives and social organizations on saving fuel and power and on reducing their consumption. Although in this respect we have achieved certain favorable results in recent years and particularly this year, when the shortage compelled many people to save, it is indisputable that great reserves still exist here. World comparisons indicate that the energy intensity per unit of national income, and also in certain comparable manufactures is indisputably high in our country.

The party presidium and the government recently approved a program to rationalize the consumption of fuel and power. The ministries, general directorates, enterprises, research institutes and the planning and design organizations must creatively elaborate and responsibly realize all feasible ways of saving fuel and power in the immediate future and in the long run. Experience indicates that these tasks must be solved far more comprehensively and specifically than up to now. The individual objectives must be included in the plans of technical development and capital construction, in the production plans of engineering and other suppliers, and--if necessary--also in the import plans and the plans for purchasing licenses.

Considerable reserves exist also in the very approach to, and disciplined observation of, the basic rules of economy; for example, machinery must not run idle, premises should not be overheated, heat should not be allowed to escape, etc. In this respect we must educate the public more effectively, so that everyone--in production, municipal services and even in every household--will understand that the power consumed unnecessarily will be lacking elsewhere, and that this lack will be evident increasingly in production dropouts. To save fuel and power is also an expression of respect for the work of our miners. We must regard as immoral and reprehensible the squandering of something that is supplied under such difficult conditions and with so much effort.

Demanding Tasks of Metallurgy and Engineering

It is gratifying that in next year's plan we can anticipate a significant increase in the output of metallurgy, thanks specifically to the successful completion of the complete overhaul of the No 2 blast furnace at the East Slovakia Iron and Steel Works, which will permit an 18-percent increase in the output of pig iron.

Comrade Lenart, speaking in behalf of the CPCZ Central Committee and the government, justifiably characterized this significant project as a fruit of the smoothly coordinated efforts of many workers in the most diverse

professions, as an exemplary combination of the experience of Soviet researchers and designers, with the skills of our designers and of the workers of our higher educational institutions. We fully concur with this evaluation. We are convinced that this success will serve as an impulse for all workers at the East Slovakia Iron and Steel Works, and not merely for them alone, to proceed more decisively than up to now in improving the quality of production in the entire metallurgical cycle.

Important tasks await next year the Sverma Iron and Steel Works in Podbrezova, where nearly a 40-percent increase in output is expected on the new capacities. The pipe program is an important export offset to the raw materials and products imported from the Soviet Union. Therefore it is essential to observe the planned schedule for the startup of production, including the training of the necessary number of workers. We likewise expect that the comrades at the Wire Mills in Hlohovec will successfully master the increased output of wire cord; on this will depend the production of conveyor belts that are essential for coal mines, and also the production of modern types of typres.

Growth rate of the output in engineering will be more moderate next year. This is attributed to problems of capacity, material supply and marketing, especially in general engineering. However, a closer analysis of these "reasons" reveals that the capacity problems often conceal inadequate fixed capital utilization, shortcomings in work organization and training, and also inadequate utilization of new technology in engineering. The problems of material supply, in their turn, are caused by internal disproportions within engineering, due to lags in developing engineering metallurgy, the complementary branches and the parts base, which must be solved primarily by the engineering ministries. The marketing problems--these appear mostly on the foreign markets, but in the case of certain durable consumer goods also on the domestic market--are likewise caused predominantly by subjective shortcomings. We are able to overcome them, through a more-responsible and more-active approach by our managing officials. The competent party organs and organizations also must guide them in this respect.

Structural changes in engineering, in favor of those production branches that at present are supporting the fast growth rate of engineering production worldwide, are proceeding at a relatively slow rate. This applies particularly to electronics, computer technology and other branches that at present ensure the automation and mechanization of production processes. On them depends also to a large extent what technical progress we introduce in our complete plants, machine tools, forming machines, as well as in our durable consumer goods. Thus the newly established Federal Ministry of Electrical Engineering is confronted with the responsible task of solving the cardinal questions in conjunction with developing one of the most progressive branches of industrial production, the spin-off of which will be the more-effective penetration of the results in the revolution in science and technology, into the social processes.

In addition to ensuring the planned tasks for next year, the ministries and general directorates must create conditions also for increasing the performance of our engineering production in the long run. Of special significance from this point of view will be fulfillment of the planned output in the progressive branches, in licensed production, in the realization of the results of our own research and development, and also the continuous startup of production on the new capacities.

The comrades at the Heavy Engineering Works in Martin must concentrate on accelerating the final production of the UR II tractor, and on increasing the output of wheeled forestry tractors, construction and road machinery, and hydraulic systems.

At the Strojsmalt economic production unit the economic management and party organizations must continue to concentrate their attention on increasing the output of new types of automatic washing machines that are in demand, on the production of quality refrigerators and household appliances, and in general on the complete consolidation of several lagging enterprises.

At the enterprises of the Tesla economic production unit it will be necessary first of all to apply technological progress to the production of new types of television sets, to preparing the startup of the licensed production of new, modern telephone exchanges, and to developing the production of integrated circuits.

At the Automation Equipment and Computer Technology Works it will be necessary to devote special attention to mastering the production of minicomputers.

At the enterprises of the automotive industry in Slovakia, which are participating in such a significant program as the expansion of the production of Tatra trucks, we expect the comrades to do everything possible to ensure that the invested resources will yield a suitable return as soon as possible. Our farmers are impatiently awaiting the Tatra-Agro vehicle. This should serve as an impetus for the comrades at the Trnava Automobile Works to accelerate--with the help of the ministry and of the economic production unit--the preparation and realization of the related investments.

Many significant tasks confront also other enterprises in Slovakia. These include, for example, the production of certain types of equipment for nuclear power plants, the accelerated production of the newly developed welding machines, expansion of the successfully mastered production of dryers, granulators, and air-conditioning units for computer centers, and change-over to the production of the new type of bogie for freight cars.

Continuous securing of the tasks in engineering proper, and in many instances in capital construction as well, requires that the enterprises producing complementary products--bearings, electric motors, pumps, ventilators, measuring and control equipment, installation materials, etc.--fulfill

their contractual obligations responsibly and on schedule. The supply of spare parts also should improve next year. According to the plan, their production will increase by about 25 percent.

Starting out from the demanding tasks that our society assigns to engineering next year and in the period thereafter, it will be necessary also in Slovakia to step up the present efforts in research, design, technological preparation and engineering control, to further raise the sophistication, quality and reliability of the products. In this respect the effects of the investments we made in recent years to expand the production base of engineering, and to develop its scientific-research base, should already be more pronounced. Hand in hand with this it is indispensable within the entire complex of engineering production to promote more consistently responsibility, discipline and an understanding of the supplier-customer relations, the more so because only a small proportion of the cooperational deliveries is balanced at the level of the state plan.

What Is Expected of the Chemical, Paper and Consumer Goods Industries

Output in the chemical industry is to increase by 3.6 percent. A certain moderation of the growth rate to date is caused by delays in the construction of certain new capacities, particularly in the synthetic fiber industry, and in the pulp and paper industry. These tasks, too, are demanding because they depend on the rapid mastering of new production, and on the better utilization of existing capacities.

We are pleased to note that consolidation of the Slovnaft petrochemical complex is being completed successfully. The importance of this production requires that the comrades at this enterprise do not relax their concern for the continuous operation of the individual production units, and that they devote appropriate attention to the solution of environmental problems.

More-pronounced progress should be made also in the consolidation of conditions at the South Slovakia Pulp Mill in Sturovo, so that we finally would not be forced to constantly mention it in conjunction with the nonfulfillment of production, quality and export tasks.

These examples illustrate that the communists at the Ministry of Industry and at the appropriate general directorate should prepare already now the smooth startup of production on the new capacities, utilizing the experience with the startup of the synthetic-fiber capacities in Humenne and Senica. Managing officials must ensure with full responsibility the important objectives regarding changes in the production structure. These indisputably include the increased extraction of light products in refining, of the intermediate fractions in petrochemistry, the increased output of LPG, also the increased output of radial tyres and wire-reinforced conveyor belts at the May 1 Rubber Works in Puchov, and of other products.

The requirement of effectiveness demands with increasing urgency that all raw materials and supplies, whether domestic or imported, acquire as much

added value as possible. In this respect the Ministry of Industry, the Ministry of Forestry and Water Resources, the appropriate general directorates and enterprises of the pulp and paper industry must consistently realize all the tasks in conjunction with the complex utilization of lumber that accounts for a significant proportion of our natural wealth. In the course of this program's realization we must concern ourselves more consistently than up to now particularly with coordinating the individual objectives in terms of physical volume and time. We cannot tolerate inadequate utilization of the furniture factories' capacities due to delays in developing the production of large-size panels, and to shortages of veneer and other supplies, as has been the case this year.

We must frankly state that we are still exporting a significant quantity of lumber that we could and should process into greater added value. We will be pursuing this trend also in next year's plan. We expect to reduce the export of rough lumber, to increase its supply to the woodworking industry so as to increase the output of pulp and paper by 7.8 percent, of laminated materials by 8.5 percent, and of furniture by 7 percent. Continuous supply of the woodworking enterprises will of course require also observation of the consumption norms, and the expedient utilization of all grades of lumber and wood waste.

We expect to increase the output of the consumer goods industry by 6.1 percent. A significant proportion of this increase in output is to be achieved on the new capacities of the furniture industry in Nitra, Kralovsky Chlumec, Trencin, Trnava and Pravenec; of the knitware industry in Roznava, Kosice and Vrbovo; and in other localities where capacities have been added to the glass and textile industries.

Many enterprises of the consumer goods industry are fulfilling their tasks under considerable pressure that stems from shortages of raw materials, supplies and, in some instances, also of capacities. We also know that the export tasks will be far more demanding than up to now, in terms of both quantity and quality specifications. However, we believe that even under the given conditions the general directorates and enterprises will be able to do much more than at present to satisfy the needs of the domestic market. But they will have to choose the right assortment of products, react more flexibly to the population's demand and cooperate more closely with the trade organizations.

We have already praised on several occasions the dedication of the workers in the textile, clothing and knitware industries. Specifically here where the proportion of woman workers is high, we have the highest shift index of all continuously operating plants, and the mastering of the tasks often requires work also on Saturdays. The more we must insist, therefore, that management and the trade-union organizations implement with full responsibility the comprehensive program of care for the workers, including the measures that the CPCZ Central Committee Presidium and the government recently adopted for the stabilization of manpower in the consumer goods industry.

Agriculture Has Considerable Untapped Reserves

Comrades, the plan for the development of farm production in 1980 starts out from the conclusions adopted by the 13th session of the CPCZ Central Committee, and by the corresponding session of the CPSL Central Committee. The plan reflects the efforts to alleviate the present imbalance between crop production and livestock production. Within the overall 8.4-percent increase in farm production, crop production will increase by 18.2 percent; and livestock production, by 0.5 percent. The planned rise in crop production must be considered in context with this year's shortfall in plan fulfillment, when the output of crop production amounts to only 93.2 percent of last year's level. We are aware that this will be a particularly demanding task.

This year we had exceptionally bad weather. Our farmers fought persistently and bravely to eliminate the negative effects of bad weather on their crops, and in many places they succeeded. Examples illustrate that good crop yields were attained where the soil was carefully prepared, good seed was used, the agrotechnical time limits were observed, cultivation and other agrotechnical measures were performed on time, and the possibilities of irrigation were utilized. These examples should serve as a lesson for those agricultural enterprises that attained lower yields under identical or similar conditions. Raising the lagging farms at least to the average level represents a great reserve. In the course of their managing work, therefore, the kraj and okres agricultural administrations must see to it that all farms thoroughly prepare their next year's crops, and that the farms receive differentiated assistance should the situation so require.

Expansion of the feed base is the primary task of the Ministry of Agriculture, of the kraj and okres agricultural administrations, of the party organs and organizations and all workers in agriculture.

On average over a longer period of time, we have already been able to attain impressive average yields per hectare in grain production. We must do everything possible to achieve the planned harvest also next year. This in itself, however, is still not enough to ensure the feed base. We must solve this problem comprehensively, primarily by increasing the average yields per hectare and the total output of feed on arable land, including companion crops, by utilizing our meadows and pastures more efficiently, and by increasing our fodder production. Realization of the protein program, the production of protein-rich crops and the wider use of waste livestock products for feeding, will require special attention.

We appeal repeatedly to the Slovak Ministry of Agriculture, to all managing organs and organizations in agriculture, as well as to the workers in agricultural research and plant breeding, and to farm workers, for more-decisive progress in overcoming the already lengthy stagnation in the average yields of potatoes and sugar beets.

All these tasks require that the individual levels of management and the farms themselves thoroughly carry out the measures that implement the resolutions adopted by the 13th session of the CPCZ Central Committee and by the corresponding session of the CPSL Central Committee. Realization of these measures will also have to be controlled, by state and economic management as well as by the party organs.

This year's poor harvest results basically influence the plan for livestock production next year. Since we have increased the import of feedgrain for the 1979-1980 farm year by 440,000 tons over the original expectations, and the import of protein feed by 33,000 tons, the resources of the feed balance will enable us to expect essentially the same volume of livestock production next year as we are achieving this year. Here we must preferentially ensure the reproduction of the cattle herd. The output of slaughter hogs will remain practically at this year's level, and the increase in the output of slaughter animals will have to be achieved with slaughter cattle.

The importation of sufficient feed for Slovakia's agriculture will require approximately 2.0 billion korunas, the equivalent of exporting, for example, 33,000 tractors. These figures, too, must help our farmers understand the seriousness and urgency of their task to use domestic and imported feed more efficiently and more economically, to reduce losses in harvesting and storage, to produce the planned marketable output of meat and milk, to ensure the population's supply with these products.

In raising slaughter animals, there still are considerable differences in the consumption of feedgrain per kilogram of weight gain. According to the data for the first nine months of this year, the consumption per kilogram of weight gain in slaughter hogs ranges from 3.73 to 3.83 kilograms in such okreses as Bratislava Suburbs, Dunajska Streda, Trencin, Liptovsky Mikulas and Dolny Kubin. In okreses of Martin, Zilina, Galanta, Nove Zamky, Michalovce and Humenne, however, the consumption of feedgrain ranges from 4 to 4.4 kilograms. This indicates that the persistent exceeding of the norms for feedgrain consumption has to be curbed more decisively. We emphatically remind all organs, and the communists at the agricultural administrations in particular, that it is their duty to fulfill the measures adopted by the federal government for the operational planning and control of feedgrain consumption.

The exceptional significance of agriculture for the balanced growth of the entire economy underscores the great responsibility of all suppliers of farm machinery, agricultural chemicals, and of the other needs of agriculture and the food industry. In the current process of forming supplier-customer relations, we have been unable so far to adequately ensure the supply of some of these requirements. In this respect it will be necessary to resolve the volume and structure of the deliveries of certain types of machinery and equipment, from the engineering branches as well as from import.

Import, Export Must Be in Equilibrium

The 14th session of the CPCZ Central Committee emphasized that a task of primary importance in 1980 and thereafter would be the improvement of equilibrium in the development of our external economic relations. This task is truly very important and demanding. Hence it follows that also we in Slovakia, at every level of management, must strive to form maximum export allocations, to improve our ability to export, to fulfill our assigned export tasks in physical units, and to achieve more-favorable export prices, primarily by improving the parameters of the exported products. Every enterprise in Slovakia must approach its tasks in this sense.

Export to socialist countries will increase by 5 percent; and export to non-socialist countries, by 13 percent. As before, engineering will be responsible for a significant proportion of the export tasks, but great tasks will be assigned also to the branches managed by the government of the Slovak Socialist Republic. Particularly the Slovchemia, Woodworking and Furniture Industry, OGAKO [expansion unknown] and Slovakotex general directorates must create conditions to ensure the export of polypropylene staple and silk, pulp, clothing, footwear, cotton fabric, furniture and other commodities.

The high import requirements in years past--and also in drafting the plan for next year--indicate that so far the seriousness of the problems in our foreign trade has not penetrated suitably the thinking and actions of many top economic officials. Those top officials who act as if these problems did not concern them at all are certainly not in the right posts. We must condemn those who lack the will and determination to confront these problems and who, as a matter of convenience, choose the easier way of perfunctorily applying the import requirements. The importation of many types of commodities could be reduced more substantially if consumption were rationalized more consistently, if suitable substitutions were sought, and if all the other possibilities were utilized that our developed economy indisputably has.

We often encounter truly unnecessary demands for import, for example, in the plans of investment projects. At the same time, the possibilities of replacing import from nonsocialist countries with our own production or with CEMA cooperation are not being utilized adequately.

Analyses prepared by the Czechoslovak State Bank indicate that in many instances expensive imported equipment long remains idle, specifically because of delays in capital construction. It is startling that on 30 June of this year the volume of imported machinery lying in warehouses was 1.1 billion korunas. In some instances--for example, at the Turcian Pulp Mills in Martin, at Chemiceluloza in Zilina, and at Bukosa in Vranov--expensive imported equipment has been in storage for years. The situation is similar at some of the other enterprises, particularly in the woodworking and food industries, and even in the capital construction of health-care facilities.

The economic effectiveness of using foreign exchange must be improved considerably. We will demand personal responsibility for spending foreign exchange on needs that are truly urgent. A strict regimen of economy must be instituted by means of the managing sphere, including the banking system, and must be supported by party political work and economic propaganda.

Economic cooperation with the Soviet Union and the other socialist countries has been and is a significant stabilizing factor of our economic development. These countries are reliable trade partners and offer mutually advantageous payment terms. Amidst the systematic intensification of the worldwide fuel, energy and raw-material problems, through this cooperation --particularly with the Soviet Union--we will continue to ensure also in the future the supply of such important raw materials as petroleum, natural gas, iron ore, nonferrous metals and cotton, and even the supply of advanced technology. The plan for next year anticipates a further intensification of this cooperation. In addition to the well-known examples such as the production of induction motors and Tatra trucks, or the pipe program, we may cite also other programs such as the preparation of the construction of production capacities for rubber and plastic additives, or for the production of agricultural chemicals.

Admittedly, we are not utilizing all the possibilities even in this area. The economic and scientific-technical potential of the Soviet Union and of the entire socialist community offers wide room for closer cooperation in production and research, so that we may continue to make production more effective and reduce our dependence on imports from nonsocialist countries. This again requires that the ministries, general directorates and enterprises show greater activity and initiative, in their own interest as well as in the interest of society as a whole.

Capital Construction Must Be More Responsible

Comrades, capital construction will likewise require close attention. The tasks are demanding primarily because we must concentrate the available contracting capacities even better than up to now, on the decisive projects that are under construction, on their completion, on the further development of construction work in localities of concentrated capital construction, and on the newly started large-scale projects.

The tasks of capital construction will be especially demanding at the system of hydraulic engineering structures on the Danube, at the V-2 nuclear power plant in Jaslovske Bohunice, at the pulp and paper complex in Ruzomberk, at the Zahorie III Cement Combine, at Chemko in Strazske, and on other centrally monitored capital construction projects.

The plan designates 56 selected projects for obligatory completion or commissioning in 1980.

The Slovak Ministry of Construction will have to exert maximum effort to further increase the construction capacities for capital construction in

Bratislava, including the unavoidable transfers. While thoroughly securing the tasks of capital construction in industry, particularly in the chemical industry and in engineering, here it will be necessary to direct the construction capacities and material resources to the completion of housing construction, specifically of municipal services, to the reconstruction of the transportation network, and to the significant unfinished projects for education, culture and health care.

In the present period of drafting the enterprise plans it will be necessary to completely solve certain still pending problems in supplier-customer relations between building contractors and investors. The point is to ensure the concentration of capacities on the important projects, in accordance with the construction schedules and completion dates. In conjunction with this it will be necessary to complete also the solution of certain pending problems of the construction industry's material-technical supply and its equipping with machinery.

At the same time it is essential that all participants in the investment process, their supervising organs, the ministries and particularly the kraj and okres national committees demonstrate complete understanding of the priorities of society as a whole, and that they reconcile the local interests with these priorities. The territorial party organs also must support this policy. We must view in this context also the decision of the government that organizations of the Ministry of Construction and of certain other ministries may not provide construction work for the Z [self-help drive for municipal and community improvements] projects. The purpose of this decision is not to begrudge the Z projects, rather to prevent the diversion of capacities, which already are in short supply, from priority projects that are of importance to society as a whole.

The demanding nature of the tasks in capital construction and their close link to related activities in all branches of the national economy demand good management of every capital construction project. Therefore we can no longer tolerate anonymity and the frequently benevolent attitude of top officials to shortcomings. Of every participant in capital construction, and of the communist in particular, we will demand an active approach, a sense of responsibility, discipline, and determination to advance capital construction, instead of seeking so-called objective reasons for the nonfulfillment of the tasks.

We have some examples of capital construction projects that proceeded smoothly and were completed on schedule. For example, the transmission plant in Povazska Bystrica, the Lab II underground facility for the storage of natural gas, the furniture factory in Trnava, renovation of the printing plant in Kosice, and others.

Unfortunately, the cases are more frequent when inadequate planning preparations, failure to ensure contractors for the projects, slow concentration of construction capacities at the start, and inadequate coordination in the course of realization result in that the startup of the new capacities is

delayed, sometimes by one or two years in comparison with the planned completion dates. In 1980, within the Slovak Ministry of Industry alone, delays in capital construction and in the startup of production will result in about 1.5 billion korunas of lost production.

Of all the branch ministries, kraj national committees, and of the Ministry of Construction and the Ministry of Development and Technology in particular, we demand that they make control more effective and enforce greater responsibility for the realization of the adopted measures. Only such an approach can enable us to fairly evaluate the good results, and also to penalize work of poor quality and the nonfulfillment of contractual obligations.

Smooth operation of the economy will depend on efficiently organizing the work of all transportation systems. In view of the capacity shortages that have appeared in recent years, we must regard as a demanding and responsible task the planned 3.5-percent increase in the volume of freight transported.

Through better cooperation among the individual transportation systems--and with the industrial and construction enterprises and other shippers--we have been able to achieve smoother and more-even satisfaction of the demand for transportation. We must not allow a recurrence of the situation when raw materials and supplies for the enterprises, and in many instances also the marketing of finished products, were held up by transportation bottlenecks.

At a time when the possibilities of expanding the rolling stock are limited, it is essential to increase our care for its maintenance and repair, to better utilize the rolling stock in both directions, and to reduce the turn-around time of the freight cars through prompt loading and unloading. Through these and other measures we must seriously achieve the planned savings in fuel consumption.

No less attention must be devoted to ensuring the prerequisites for the development of transportation in the subsequent period, either through capital construction or technological progress such as, for example, containerization. We may include here also the implementation of the resolution that the CPSL Central Committee Presidium adopted for utilizing the possibilities of efficient water transport on the Danube.

Requirement of Effectiveness Must Be Asserted More Decisively

Comrades, next year we must assert more decisively than up to now the requirement of high effectiveness in all areas of the economy. As Comrade Husak, the secretary general, said at the 11th session of the Central Committee, "This is the only way to master the tasks and to create adequate resources also in the future, for attaining our party's basic objective--the satisfaction of the people's material and cultural needs."

In other words, then, we must form resources at a high level of the social productivity of labor, with utmost economy in the expenditure of resources.

In the plan we anticipate that the rise in labor productivity will account for 80 percent of the increase in output in Slovakia. The conditions for this are being ensured, among other things, by the fact that in industry and construction the equipping of labor with machinery will proceed at a faster rate than the rise of labor productivity. We attach top priority also to the conversion of raw materials and supplies into greater value, to fuller utilization of the available working time, and to more-efficient allocation of manpower.

Although we in Slovakia are achieving somewhat better results in the utilization of machinery and in the overall shift index than nationwide, this is by no means cause for complacency. In this respect we still have great reserves at many enterprises. We frankly admit that we have not been entirely successful in opposing the tendencies of extensive development, and in overriding the various partial interests that prevent the liquidation of obsolete and inefficient plants. We emphatically demand that next year the ministries and general directorates spend their resources for machinery and equipment in a much more concentrated manner than up to now, for the complete modernization and reconstruction of the production lines and entire plants.

In the plan the efforts to use raw materials, supplies and the other factors of production more economically, and to convert them into greater value, are expressed in the task to reduce the material costs per unit of output by 0.69 percent, and the total costs by 0.48 percent. In the costs, moreover, it will be necessary to moderate the effect of higher fuel prices and communications rates, which makes this task even more demanding.

At all workplaces we will seriously implement and strictly control measures that the government adopted when it approved the 1980 budget, measures aimed at making management more economical, and at reducing entertainment and advertising costs. In this respect it will be a responsible task also to elaborate and implement measures for reducing the number of administrative workers. Not only the appropriate top officials, but also the party and trade-union organizations will have to devote due attention to the comprehensive solution of these questions, so as to attain the objectives that we wish to achieve in this manner.

If we are to successfully continue in improving the effectiveness of the reproduction process, particularly in context with the tasks that await us under the Seventh Five-Year Plan, then we must approach with greater foresight the setting of tasks for the development of science and technology. This means that on the one hand we must make the work of our scientific-research base more effective, and on the other hand we must apply more quickly to practice the results in the development of science and technology worldwide, and in the Soviet Union and other socialist countries in particular.

For the development of the scientific-research base we anticipate in the plan for next year a further rise of investment and noninvestment resources and foreign exchange. The number of workers within the scientific-research

base will also increase, to nearly 50,000 persons in the Slovak Socialist Republic.

The plan calls for utilizing 288 proposals for realization. These include the production of new types of cables, steel cord, the first model of a standard series of industrial robots, and the modernization of the processor and of the immediate-access semiconductor memory. In the chemical industry the proposals for realization concentrate on the production of second-generation fibers. In agriculture and the food industry the proposals for realization concern the intensification of hay crops, and new types and technologies in the production of baby foods, cheeses, and new products made of grain.

Upon their complete application to production, the proposals for realization will result in an output volume of about 2.0 billion korunas, in savings of over 900 million korunas in production costs and the equivalent of 680 million korunas in foreign exchange, and in an increase of 180 million korunas in export. Simultaneously, they will save about 2800 workers and 11,400 tons of standard fuel equivalent.

The state plan for research includes 134 R & D tasks, of which 86 are to be completed next year. A significant proportion of these tasks--22 percent--calls for developing new products and technologies; over 21 percent, for raising labor productivity; and 15 percent, for saving raw materials, supplies, fuel and power. The other R & D tasks fall in the area of health care, of improving the living and working environment, and of using computer technology to upgrade the level of management.

From the number of R & D tasks in the state plan, not to mention the ones in the departmental and enterprise plans, it would be difficult to draw conclusions on the basis of some universal indicator regarding the overall effect of technical development. But if we compare our labor productivity, the value added to our raw materials, and the salability of our products on foreign markets with the situation worldwide, we may justifiably say that scientific and technological development will have to play a far more significant role under the conditions of the policy that we are pursuing, and which we will have to pursue even more forcefully under the Seventh Five-Year Plan. As Comrade Hula emphasized at the 14th session of the CPCZ Central Committee, "In context with our economy and policies that are timely also from the viewpoint of the next five-year plan and the development thereafter, the area of scientific and technological development is a question of basic strategy We must do far more to change the attitude regarding the role of technological development, its possibilities and utilization, and this must also become the subject of the everyday assertion of the party's leading role in economic policy."

In the course of drafting the plans for technological development, the Ministry of Development and Technology will have to pursue more consistently the concentration of our research and development capacities on fewer selected tasks, the ones in which we have the prerequisites for successful solutions that we can apply at home and abroad.

The individual ministries must devote closer attention to upgrading the management of the R & D work stations. From this point of view it is particularly important to select gifted officials who are able to lead creative collectives and teams, and to organize fruitful cooperation with the work stations in entire Czechoslovakia, as well as with the ones in the Soviet Union and the other socialist countries. We must also see to it that the remuneration of the workers within the scientific-research base be linked more closely to their concrete results, and to the return that these results yield for society.

Understandably, the potential of our scientific-research base is limited, and we are unable to solve everything ourselves. Therefore we must approach with much greater foresight and more purposefully the transfer of worldwide technological progress, through purchases of machinery and equipment and also by utilizing the possibilities of licensed production. For next year we have a program ready to spend 112 million korunas on the acquisition of licenses, and the proposals in this program will be screened on the basis of technical-economic analyses. The ministries must carefully consider their proposals to avoid dissipating their resources on minor objectives, instead of concentrating them on complete production sectors that determine the technological level of the entire economy, for example, electronics, hydraulics, advanced chemistry, and others.

How We Work and Economize Will Determine How We Live

Comrades, in accord with the primary objective of our party's economic policy, the plan for 1980 is designed to ensure a further rise in our population's living standard, closely linked to the formation of material resources and to a rise in effectiveness.

We must strongly emphasize that an immutable equation exists between the formation of resources on the one hand, and their consumption on the other. We can increase consumption only to the extent that we are able to increase the output, raise labor productivity, institute greater economy and improve effectiveness in general. From this there follows for all of us, and for the top officials in particular, the serious responsibility of organizing our work and mobilizing all the workers for the fulfillment of the tasks and the uncovering of reserves, so as to achieve what is in the forefront of our program--the better satisfaction of the population's material and cultural needs.

We raised the retail prices of fuel and electricity, of children's clothes and footwear, and of communications services very reluctantly, but there was no other way of exerting pressure for greater economy within households, of curbing the extensive purchases of low-cost children's clothes by foreign tourists, and of bringing the level of these prices at least approximately in line with the costs.

We wish to maintain and improve further the population's living standard that already now compares favorably with the international criteria, in

terms of per capita consumption, the level of housing, the scope of recreation, and particularly in terms of the level of health care and education.

Money incomes are to increase by 6 percent next year, which will permit a corresponding rise in the retail turnover. With the planned deliveries for market allocations we will not only ensure the retail turnover but will also increase the trade organizations' inventories. Much more attention, however, will have to be devoted to the structure of these deliveries. Shortages of certain types of merchandise, often small items that nevertheless are essential (candles, rubber gaskets, toothpaste, etc.) undermine in the eyes of the consumer public the favorable results that we unquestionably are achieving in the rise of material consumption. The resolutions of the seventh session of the CPCZ Central Committee, which the comrades in production have elaborated into specific measures, fully apply to this area. We expect that these measures will be fully projected into the mutual relations when the contracts between production and trade are concluded, and that these measures will be fully implemented in the course of fulfilling the contracts.

The Ministry of Trade, the Association of Consumer Cooperatives, the general directorates and the trade enterprises must assert the consumers' interests more consistently in relation to production. To this end the surveys of consumer demand must be organized more skillfully, their results must be utilized more effectively, the assortment of merchandise must be supplemented and made more varied through the rational use of foreign exchange and through exchange programs with the trade organizations of the other socialist countries. Trade must see to it that the entire assortment of merchandise made in the CSSR is available in all the krajs.

We know that production does not always supply the requirements of trade in their entire volume and assortment. But trade itself can contribute significantly toward the continuity of supply, through timely orders of merchandise, through its proper distribution among the retail outlets, by keeping in stock the necessary range of sizes, colors, etc. In many instances also the hours during which the stores are open could be better organized, and there should be no arbitrary closings of stores.

We believe that the workers of our socialist trade--even at the present size of the personnel and the present level of technical equipment, both of which we will further improve next year--will be able to contribute by their work toward satisfying the needs of our people. In this we see also the importance of the political responsibility of the party and trade-union organizations within our trade network.

For the further improvement of housing as one of the basic components of the living standard, in next year's plan we anticipate the completion of 49,000 housing units, which will be an increase of 4,300 over this year. The present state of housing construction in progress should permit the fulfillment of this task. However, the construction enterprises must

fulfill more thoroughly their task of building municipal services. We must frankly admit that our construction workers have been unable to master the tasks of building municipal services, an area where we wished to eliminate the persisting lag and to compensate also for the backlog under the Fifth Five-Year Plan. We expect them to accelerate the development of their material-technical base for the industrialized construction of municipal services, in full awareness of the fact that the objective is to satisfy the needs of the tens and thousands of residents in the new settlements, and that consequently this is an important political task.

Allocations for the population's social consumption will increase by 3.4 percent over this year. We must point out, however, that in this area we have significantly exceeded in preceding years the level set by the Sixth Five-Year Plan. Therefore we will institute utmost economy also in this area, and within the limits of the allocations we will solve the priority tasks such as, for example, the program for the further development of our educational system.

The tertiary sphere's material equipment will further improve next year. For example, the bed capacity of the health-care institutions will increase by 2,850 beds, which will be admittedly less than what we had anticipated in the Sixth Five-Year Plan. Places for 11,000 children will be added to the capacity of the kindergartens, which will permit the enrollment of 81.5 percent of the children in the 3 to 5 age group. The capacity of the students' dormitories will be enlarged with the addition of 1,780 beds.

Perfection of Management System an Unavoidable Task

Comrades, we have outlined the most important tasks and problems that await us in conjunction with securing the plan for the last year of the Sixth Five-Year Plan.

However, our objectives would remain merely wishes if we were to fail to ensure at every level of management the conditions necessary for their realization, and to gain the support of all workers for their fulfillment.

It is a known fact that the level of planning work must be raised commensurately with the complexity of the economy. The important thing here is not what methods and system of indicators we use, but what content we assign to them so that the tasks included in the plan may be based on thorough knowledge and exact computations, and that in a global approach we do not lose sight of the economy itself in all its complexity.

Essentially this means that we must explore and analyze more thoroughly the development of the economy, uncover the causal relationships between economic phenomena in all their diversity, and study the developmental trends and directions of progress so that our economic and social life may advance in a planned manner. As this follows also from the proceedings of the 14th session of the CPCZ Central Committee, we are confronted with the

task of further improving the forms and methods of planning activity. This applies to the central planning organs, to the Slovak Planning Commission in our republic, as well as to the ministries, economic production units, national committees and enterprises, and finally to the plants themselves. All these levels of management are full-fledged planning organs and bear an appropriate share of the responsibility for the level of our plans.

What efforts should we make to improve planning now when we already have a plan approved for next year?

Our efforts to improve planning should manifest themselves first of all in the quality of the breakdown of the state plan's tasks by economic production units and enterprises, so that the breakdown may be comprehensive and mutually reconciled; and what is particularly important, the breakdown must be prepared in a differentiated manner, based on objective knowledge of the specific conditions at the individual economic production units and enterprises.

In the course of drafting the economic plans of the enterprises, special attention must be devoted to resolving the pending questions of supplier-customer relations, so that the plan may be reconciled more thoroughly in physical terms, and better balanced internally.

Measures that specify the ways and means of securing the tasks must be a part of the enterprise plans. The ministries, national committees and enterprise sphere must be more consistent and show greater foresight in forming the conditions for the even fulfillment of the plan, to avoid harmful fluctuations in the course of its realization.

Fulfillment of the plan at every enterprise and plant presupposes a greater concentration of effort on the timely commissioning of capacities, on the smooth operation of the production equipment, and on greater care for the stabilization of manpower.

In the course of securing the tasks next year, particularly with the emphasis on improving quality and effectiveness, we must achieve that the measures we adopted within the system of planned management function more effectively, together with the further improvements in management proper.

We request the ministries and general directorates to utilize more fully the present system of material incentives, for raising effectiveness and quality. It will depend primarily on them to ensure that the financial and other economic instruments influence more effectively not only the economic production unit as a whole, but also its enterprises and the profit centers within each enterprise, as well as individuals. This in its turn requires that we apply the khozraschet principle with greater emphasis and develop the functions of costing, norm-setting, accounting and billing.

At several economic production units in industry, and within the construction industry at the Industrial Construction economic production unit in

Kosice, we are conducting a comprehensive experiment with managing effectiveness and quality. This experiment already incorporates a significant proportion of the elements contained in the draft proposal for perfecting the system of planned management. Even though the experiment has not proceeded in some places under the most favorable conditions of material-technical supply, energy supply and of the plan's long-term clarification, the results to date nevertheless indicate that the experiment has a favorable influence on the qualitative aspects of economic activity. Top officials and other workers are beginning to develop a sound interest in the application of technological progress, quality, innovation and the effectiveness of foreign trade, i.e., in the elements on which the enterprise and personal material incentives are based.

We likewise request that the economic ministries and the lower levels of management consistently continue in introducing the comprehensive system of managing product quality, and that they fully implement the measures to penalize the output of products of poor quality. Understandably, both the party organizations and social organizations must devote more attention to these questions.

All levels of management will be confronted next year with responsible tasks in conjunction with working out the details of the improved system of planned management that will be in force under the Seventh Five-Year Plan. This implies an entire series of tasks in conjunction with the organizational and legal aspects of the system, and it also raises demands for political education by means of which we must develop--through the party, trade-union and other social organizations--a suitable atmosphere for the new system's successful introduction.

The draft principles for perfecting the system of planned management retain all the proven aspects of the present system and propose changes only where the present system does not adequately influence the improvement of effectiveness. The experience of the Soviet Union and other socialist countries is utilized in the draft principles.

The level of planning is to be improved particularly by greater foresight and by applying the target-program approach to ensuring the development of key branches. The basic instrument of planned management is to be the five-year plan, with emphasis on its inevitable stability.

Parallel with this we will introduce also counterplanning, based on the workers' wide participation and self-interest in mobilizing reserves, in overfulfilling the tasks of the five-year plan already in the annual plans of the enterprises and economic production units.

A further characteristic feature of the measures is the thorough application of the principle of merit in evaluating the work of enterprises, collectives and individuals. In this way the differences between good and poor performance will be reflected more clearly in remuneration. The workers' material incentives will be defined more closely and will depend on the

tasks for which they are specifically responsible, and not on the results of the entire enterprise as at present. For this purpose we will introduce more-objective criteria for measuring the performances of enterprises and workers, in accordance with their actual contributions to society.

We are aware that no system functions automatically, that its effectiveness depends on how it is applied and used under specific conditions, how specific people operate it and work within its framework.

Understandably, we will continue to raise the requirements on managerial work at every level, to demand of managers a more thorough knowledge of the problems, more initiative and activity, prompter and skillful decisions, and stricter discipline in all areas of activity.

There is room for improvement also in the work of coordination between the individual ministries and the lower levels of management within the republic, as well as in relations with the federal and Czech counterparts. In this respect the cross-sectional ministries and central organs must intensify further their coordinating functions.

It will depend to a considerable extent on direct managerial work that we implement socialism's basic principle of moral appreciation and material remuneration in accordance with the quantity and quality of the work performed. We are aware that to break through the barrier of ingrained opportunism, which persists in our country in the area of wage practice, will require the concentrated and joint efforts of top officials, with the effective assistance of the party and social organs.

Managing officials must demonstrate more boldness and personal courage in tightening labor discipline. Particularly in conjunction with the utilization of working time, we have been fighting for years against the so-called construction workers' Mondays and Fridays, against tardiness in reporting for work and early departures from the workplace. However, the situation has not improved much. This is reflected also in the daily and weekly diagrams of power consumption; these diagrams clearly tell us the hours and days when work is slack, where we have reserves.

Political unambiguity, socialist ownership, the performance of officials and their attitude to work are the decisive criteria that we must use in assigning people and entrusting them with positions. In the Central Committee we have repeatedly emphasized that those who are unable to fulfill their growing tasks will have to be replaced with more-capable, politically and professionally trained cadres. We have a reserve of young, talented officials whose responsiveness to new ideas and their enthusiasm must be effectively combined with the vast life experience of elder officials. We must assign also more capable women to managing positions.

Behind the results, problems and shortcomings we must always see the specific people. At every workplace we must generate an atmosphere of critical

exactness and wage a decisive struggle against harmful tolerance of shortcomings. Systematic, preventive and thorough control will enable us to uncover in due time the roots of the shortcomings, and to adopt the measures necessary for their elimination.

Through the purposeful work of the party organizations in the productive and nonproductive spheres we must create an atmosphere of confidence in our own abilities, and thereby combat the pessimistic moods and hopelessness that are unfounded. We have an extensive technical production base, capable and skilled people. Our ability to utilize this potential for the fulfillment of the tasks next year will depend to a decisive extent on the economic organizational work of the managing staffs.

For Higher Objectives, Through Joint Effort

Comrades, as the 14th session of the CPCZ Central Committee emphasized, the wide range and demanding nature of the tasks in conjunction with the further dynamic growth of the national economy place great demands on the functioning of the party organs and organizations, on further reinforcing the party's leading role in the life of entire society and in the economy in particular.

This requires that we constantly upgrade all areas of life within the party, that we raise the level of political organizational work, ideological and educational work, of political work among the masses, and cadre work.

However, the struggle to impart substance to the program of the 15th CPCZ Congress and to the resolutions of CPSL Congress indicates that fulfillment of the tasks, utilization of the reserves, and elimination of shortcomings are not being approached everywhere with communist adherence to principles and communist responsibility.

At present we must achieve that the party, state, economic and social organs and organizations combine their efforts for the plan's realization. In particular it is essential that communists, at every level of management and directly in production, correctly understand the purpose of the resolutions adopted by the supreme party organs, that they persistently implement these resolutions, oppose formalism and superficiality in their elaboration, and gain the support of the other workers for the party's policies, for the realization of the program of economic and social development.

The issuance of new CPCZ membership cards has created favorable conditions for such an active party approach. It has helped to mobilize the communists, to strengthen their unity, and to increase the party's ability to take action. In the interviews the responsibility of each communist for his assigned area was emphasized. Now this responsibility must manifest itself in concrete work, so that even after the issuance of the new membership cards the activity of the communists may be the constant driving force behind the party's internal life.

This requires that the kraj and okres party committees continue to direct the activity of the party organizations and their committees, to the fulfillment of the tasks in next year's national economic plan, and to responsible groundwork for the Seventh Five-Year Plan.

It is essential that to this end the party organs and organizations apply critical exactness, skillfully and with thorough knowledge of the problems, to evaluating the activity particularly of the top officials. They proceed more forcefully in overcoming manifestations of complacency, or of routine and indifference, of waste and various other shortcomings, and call to party responsibility those communists who are not fulfilling their obligations.

It appears that in the activity of the party organizations specifically control activity is the weakest link. It is essential to exercise the right of control more forcefully in relation to economic management, and particularly to set stricter requirements where the foresight and quality of management must be improved, and where there are considerable reserves and shortcomings. The point in particular is to exercise systematic and thorough control, with emphasis on how economic management approaches the tasks of the plan, how it forms the conditions for their fulfillment, how it secures them through systematic managerial activity. The party organization cannot replace economic management. Employing specific forms and methods of party work, the party organization must solve the tasks so as to enhance in practice the authority and responsibility of the top economic officials. Any other approach would foster excuses, indifference and opportunism in the activity of economic management and of the party organization.

The party organs and organizations must fully support all those who in the struggle for plan fulfillment, effectiveness and quality apply strict standards, uncompromisingly promote the interests of society as a whole, fight for the acceleration of scientific and technological progress, for introducing utmost economy, and for tightening discipline.

Party members and candidates must be assigned more specific party tasks and must be deployed purposefully to strengthen the party's direct influence, particularly in those areas that decisively influence fulfillment of the tasks.

Social organizations, primarily the Revolutionary Trade-Union Movement and the Union of Socialist Youth, play a decisive role in the efforts of our entire society to achieve the set objectives. In this respect we evaluate favorably the joint approach on which the SSR government and the Slovak Council of Trade Unions have agreed to ensure the tasks of the plan and to direct the workers' initiative next year. We must follow consistently the measures agreed upon by the ministries and the trade unions. Much depends on their cooperation being not perfunctory but effective and fruitful. This requires, among other things, the creation of conditions for increasing the workers' participation in the plan's discussion, in order to join forces for solving the problems and mastering the difficulties, and to provide room

for the workers' initiative. We are putting to practice the principle emphasized by Comrade Brezhnev at the November session of the CPSU Central Committee: "To us initiative from below is an irreplaceable reserve for accelerating economic development."

Appreciating the dedicated participation to date of the hundreds and thousands of officials and members of the Revolutionary Trade-Union Movement, Union of Socialist Youth and of the Union of Women, in developing socialist competition and in the activity of the brigades of socialist labor and the complex rationalization brigades, we express our conviction that in the last year of the Sixth Five-Year Plan they will intensify their efforts for fulfilling the plan's tasks, and for effectiveness and quality. Socialist competition, particularly the joint pledges not only in capital construction but also at industrial plants, the creative initiatives of inventors and innovators, the initiative of worker collectives, brigades of socialist labor and complex rationalization brigades deserve the full support of the party organs and organizations and, of course, of economic management. And as emphasized in the resolution adopted at the 14th session of the CPCZ Central Committee, the communists must set an example.

It is essential to effectively combine with ideological work the activity of all levels of state and economic management. Inspired by the example and experience of the Soviet communists, we must apply to everyday practice the principle that anyone who manages any kind of collective has the obligation to exercise educational influence, must spread the true message of the party among the workers, and must clarify and implement the party's policy. Comrade Husak reminded us with special emphasis that to manage means not only to issue decrees, orders and bans, but also to lead the people so that they will have a better understanding of the purpose of their work and will consciously fulfill their tasks.

Economic propaganda and agitation are of great importance for achieving the set objectives. Although in recent years considerable progress has been made in this respect in the work of the party organizations, trade unions and media of mass information and propaganda, the new tasks place greater demands on economic propaganda and agitation, on their purposefulness and systematic nature, on their substantiation with arguments and, to put it succinctly, on their greater activity.

We appreciate what the press, radio and television have done for developing the workers' activity and initiative. Particularly the daily PRAVDA devotes systematic attention to popularizing our best collectives and individuals, to disseminating the progressive Soviet experience such as the Ivovskiy system of managing quality, the Belorussian experience with the management of capital construction, Zlobinov's method, etc. Many production collectives in our plants are adopting these methods and are applying them creatively. Good results are being achieved particularly where top economic officials regard as their primary duty the adoption of progressive experience and the support of the workers' initiative.

The media of mass information and propaganda can and certainly will continue to play an important role in the struggle for effectiveness and quality, through the force of positive examples, and also by their criticism that must be fair, specific, addressed and constructive. This places great demands on the workers of editorial offices. At the same time we must underscore the obligation of the criticized to respond responsibly to responsible criticism, and to eliminate the shortcomings, in the interest our progress, in the interest of attaining the set objectives.

Comrades, we will be fulfilling the demanding tasks of the 1980 plan in the year which will mark the 35th anniversary of Czechoslovakia's liberation by the glorious Soviet Army. Indeed, there can be no better or more worthy way of commemorating this significant anniversary than by creative, fruitful and conscious work for fulfilling the tasks of the Sixth Five-Year Plan's final year.

Next year the preparations will reach their peak for the 16th CPCZ Congress and the CPSL Congress, at which we will report to the entire party and the workers on how we have fulfilled the program of economic and social development, the program of comprehensively raising our people's living standard.

Within our Central Committee, in the party, state and economic organs and organizations, in all organizations of the Popular Front and at specific workplaces, let us do everything so that the balance of our work may be the best, and that Slovakia may participate to an even greater extent in the development of the Czechoslovak Socialist Republic, in strengthening its economic and defense potential.

On the peaceful front of our Sixth Five-Year Plan let us demonstrate our revolutionary nature, our communist conviction, our attitude to our Czechoslovak socialist fatherland.

1014

CSO: 2400

NOVEMBER ECONOMIC RESULTS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 21 Nov 79 p 2

[Report of the Federal Statistical Office: "November 1979"]

[Text] The development of the national economy showed the following basic trends in November 1979:

--in industry, the total gross production volume as well as average daily production were higher than in November 1978. On the other hand, the production loss was reduced more than the enterprise plans had anticipated;

--in the building industry, the volume of construction work increased, while average daily production remained below the November 1978 level. In comparison with the end of October, the production loss remained unchanged;

--in animal production, the purchase of pigs for slaughter accelerated, while the acceleration achieved in the purchase of milk in October continued;

--in foreign trade, the growth rates of exports and imports accelerated both in relation to the socialist and capitalist countries;

--in domestic trade, the dynamic increase in the retail turnover in the principal trade systems slowed down.

During the January-November period, the number of workdays was identical with that of the corresponding period of last year.

In the centrally planned industry, the gross production volume in November reached the value of Kcs 55.9 billion, that is by 5.2 percent more than in November 1978. Average daily production increased by 0.6 percent. The sum of enterprise plans was slightly--by 0.1 points--surpassed in November. Almost 25 percent of industrial enterprises failed to meet their production targets this month. During the first 11 months of this year, the gross production volume in the centrally planned industry amounted to Kcs 553 billion which represents 91.2 percent of the target set by the annual state plan. In comparison with the corresponding period of last year, gross production increased by 3.5 percent, while the modified annual state plan had

anticipated a 4 percent increase. Production increased most rapidly in the following sectors during this period: general engineering 106.6 (the growth rate anticipated by the annual state plan is 107.3); heavy engineering 105.9 (annual state plan 104.5); rubber industry 105.4 (annual state plan 104.7). On the other hand, the following planning groups registered low growth rates and low plan fulfillment: production of building materials, glass, ceramics and porcelain industry and pulp-paper industry.

The November enterprise plans were fulfilled 99.9 percent. Contrary to the enterprise plans, the total production loss was reduced, due to the surpassing of plan targets in November, by Kcs 75 million in comparison with the situation at the end of October: it amounted to Kcs 437 million and represents average production planned for 0.19 days. The number of enterprises nonfulfilling the plan declined by 12, but approximately 20 percent of enterprises still failed to meet the plan targets.

In the area of sales, the total shipments by the centrally managed industry amounted to Kcs 644.7 billion by the end of October which was by 2.8 percent more than during the same period of 1978. The shipments for exports registered the highest growth rate during 10 months. With the exception of machinery and equipment for capital construction projects, the level planned for this year was not reached in any economic direction of sales so far. The plan targets set for the shipments to domestic trade were not met particularly by general engineering, chemical and crude oil processing industry and garment industry. The glass, ceramics and porcelain industry, production of building materials and the wood-working industry failed to meet proportionately the annual targets set for export shipments.

In agriculture, the November purchases of all basic animal products were larger than in November 1978. The purchase of pigs for slaughter and milk increased more than in the previous months. The purchase schedule was surpassed by the end of November in regard to calves and poultry for slaughter and eggs, and approximately complied with in regard to cattle for slaughter. Despite the increased purchases in November, however, the plan targets set for the purchase of pig for slaughter and milk were not met.

The public freight transportation sector fulfilled the freight transportation plan 101.8 percent in November (102.7 percent in railroad transportation and 100.9 percent in CSAD [Czechoslovak State Automobile Transportation]). During the January-November period, the public freight transportation sector met the goal 98.9 percent (98.9 percent in railroad transportation and 99 percent in CSAD). A total of 573.3 million tons of commodities, that is 90.8 percent of the annual target, were carried during the first 11 months. By surpassing the transportation volume planned for November by 1.8 percent, the total lag of public freight transportation from the beginning of the year was reduced to 6.2 million tons. The railroad loading volume in the CSD [Czechoslovak State Railroads] network amounted to 98.8 percent during the 11 months and thus surpassed the reality of the corresponding period of last year by 0.8 percent. Among the key commodities, the loading plan was fulfilled during

the January-November period more than 99 percent in regard to solid fuels and ores, 100.3 percent in regard to metallurgical and engineering products and 96.3 percent in regard to building materials.

In the building industry, the enterprise plans of construction work carried out by their own labor force were fulfilled 99.6 percent in November. The value of construction work amounted to Kcs 7.1 billion which was by 2.2 percent more than in November 1978. Average daily production, however, was by 2.2 percent smaller. During the January-November period, the construction enterprises completed work carried out by their own labor force in the value of Kcs 74.9 billion and thus met 90.3 percent of the annual plan target. In contrast to the first 11 months of last year, the growth rate of construction work reached 103.7, while the growth rate anticipated by the annual plan is 105.5. The detailing of enterprise plans of ZSV [basic construction output] has been complied with 98.5 percent from the beginning of the year, but 95 construction enterprises, that is 40.8 percent of the total did not fulfill the enterprise plans. The lag of construction work behind the plan was not reduced in November--it amounts to Kcs 1.1 billion and represents production of approximately 3.6 days. In the housing construction carried out by the contracting enterprises, 8,334 dwelling units were completed in November and 54,124 dwelling units from the beginning of the year, that is by 1,858 apartments less than in the same period of last year. The annual target was met 63.8 percent during the January-November period.

In capital investment (according to the estimates made for November), the volume of investment work and deliveries amounted to approximately Kcs 114 billion and thus exceeded by 1.5 percent the level reached during the same period of last year. A more rapid growth rate was registered during the first 11 months in the shipments of machinery and equipment (101.8) than in construction work (101.2). Capital investment met 83.6 percent of the annual plan target by the end of November.

In domestic trade, merchandise in the value of Kcs 20 billion was sold during November (including merchandise in the value of Kcs 18 billion in the trade network and Kcs 2 billion in the public catering establishments). In comparison with the same period of last year, the retail turnover in the main trade system increased by 4 percent in November. From the beginning of the year up to the end of November, the organizations of main trade systems sold merchandise in the value of Kcs 188.3 billion, that is by 3.4 percent more than during the same period of last year. The enterprise plans calling for an increase in the retail trade turnover were fulfilled 101.1 percent during the 11 months. In comparison with last year, the biggest increase registered during the January-November period was in the retail trade turnover of Coal Yards (118.7--due to the price revision in July 1979).

In foreign trade, imports increased at a higher rate than exports. During the first 11 months of this year, however, the growth rate of exports surpassed that of imports. The commodity exchange with the socialist states reached 88.1 percent of the export volume and 85.6 percent of the import

volume set by the state plan by the end of November. The corresponding figures in relation to the capitalist states were 86 percent for exports and 85.2 percent for imports.

Personal savings accounts, as of 15 November 1979 reached Kcs 147.6 billion; savings from 1 Jan to 15 Nov. In 1979 savings grew by almost Kcs 4.4 bil. which is Kcs 545 mil faster than in the same period last year.

Money supply was Kcs 40.5 billion as of 30 November 1979.

FEDERAL STATISTICAL OFFICE

Basic Indicators of Development of National Economy in November 1979

Increment Over Comparable 1978 Period (in percent)

	<u>Oct.</u>	<u>Nov.</u>	<u>Jan.- Nov.</u>	<u>Federal Plan¹</u>
Industry:				
Gross production	4,6	5,2	3,5	4,0
Average number of workers	0,8	0,6	0,8	0,7 ⁴
Labor productivity	3,7	4,5	2,7	3,8 ⁴
Construction:				
Construction work completed				
with internal resources	2,9	2,2	3,7	5,5
Average number of workers	0,9	-0,7	0,5	0,9
Labor productivity	2,3	2,8	3,2	4,6
Housing units delivered by				
contracting enterprises	13,9	-18,2	-9,2	4,1
Procurement:				
Slaughter animals (including				
poultry)	0,4	5,4	2,5	4,1
Milk	5,0	5,0	0,4	3,4
Eggs	6,9	3,1	3,5	3,6
Retail Trade:				
Of the main trade systems	7,3	4,0	3,4	2,3 ²
Foreign Trade: ³				
Exports to socialist countries	-5,3	25,9	7,4	7,1
Exports to nonsocialist countries	11,5	26,0	15,2	14,6
Imports from socialist countries	6,4	15,8	8,0	9,9
Imports from nonsocialist				
countries	17,5	52,6	12,0	12,5

	Oct.	Jan.- Oct.	Federal Plan ¹
Total sales (for organizations included in the federal plan)	3,5	2,8	
Of which:			
Investments	-4,1	1,7	-8,7
Domestic trade	8,2	1,9	4,6
Exports (according to plan)	3,7	3,1	5,0 ⁴
Other sales (including un- planned exports)	2,9	3,0	
Investment work and deliveries (excluding Action Z and other self-help)	1,6	1,1	1,9
Of which:			
Construction	-3,5	1,0	6,2
Machinery and equipment	9,3	1,2	-3,6
Personal cash earnings ⁶	3,8	3,4	4,4 ⁵
On which:			
Wages	3,3	3,7	3,3
Actual consumption expenditures ⁶	7,8	3,0	3,3 ⁵

1. Increments compared to actual 1978 results.
2. All trade systems.
3. Data on actual results refer to actual transactions and does not include unplanned actions in the framework of cooperation, unplanned reexports, barter, tied trade transactions, etc.
4. Increments compared to the expected 1978 results.
5. including estimated interest for loans.
6. Monthly data calculated according to the treasury plan of the Czechoslovak State Bank.

10501
CSO: 2400

NEGATIVE INFLUENCES HAMPER CHEMICAL INDUSTRY

Prague HOSPODARSKE NOVINY in Czech 7 Dec 79 p 2

[Article by Miroslav Smehlik, worker at the CPCZ Central Committee: "Chemical Industry"]

[Text] In the last 10 months, the worker collectives in chemical, rubber, plastics and pulp-paper industries of both republics had to cope with a variety of complex conditions and unexpected problems. To make adopted measures more effective and specific, it was decided in a number of instances to follow up and evaluate every day those productions which are directly and decisively linked to the satisfaction of needs of the entire national economy.

During the January-October period, the CSR chemical industry fulfilled the planned tasks by 99.6 percent, while meeting 81.6 percent of the annual targets. This resulted in the production lag amounting to four workdays. The lag was primarily caused by the difficulties in obtaining raw materials and the increase in their prices on the world markets. Up to now, they account for a production loss exceeding Kcs 700 million in value. To a considerable extent, however, the situation could and can be resolved by consistently effecting mandatory transfers between chemical industries of both republics and appropriate prompt measures between economic production units and other respective partners.

Particularly demanding tasks in the remaining weeks of the year are faced by Chemopetrol, Paper and Pulp Industry and specifically by Unichem VHJ [economic production unit], where the effort of workers in Synthesie East-Bohemian Chemical Plants and Association for Chemical and Metallurgical production in Usti nad Labem must be backed by concentrated support and joint action of all respective units of management.

The overall plan fulfillment was adversely affected also by breakdowns and accidents which caused a production loss 16.6 percent bigger than in the corresponding period of last year. The production loss amounted to 34.1 percent in Unichem VHJ and 32.5 percent in Paper and Pulp Industry. It was reduced by 14 percent only in the Czech Rubber and Plastics Plants.

Good results were achieved in the shipments to the market funds which the Czech chemical industry fulfilled 100.9 percent, while meeting 85.7 percent of the annual target. The planned tasks and proportional parts of the annual targets were fulfilled, in both absolute and relative terms, in exports to the socialist as well as capitalist states.

From the beginning of the year till the end of October, the SSR chemical industry fulfilled its tasks by 100.1 percent, while meeting 82.4 percent of the annual target. Most lagging in this respect is Slovcepa VHJ which faces the task of meeting, in the remaining weeks, more than 9 percent of the annual target specified for this month. Comparatively good results were achieved in deliveries to the market funds and in exports to the socialist countries. Moreover, Slovchemia notably exceeded exports to the capitalist states by fulfilling the tasks 119 percent. On the other hand, Slovcepa, by failing to meet export goals in this area, means the satisfaction of its own needs as well as needs of the SSR Ministry of Industry considerably more difficult.

Likewise, the SSR chemical and pulp-paper industries encounter serious problems in securing basic raw materials. Although their absolute and relative importance is qualitatively different from those existing in the CSR chemical industry, prompt and permanent attention must be paid to them by the appropriate units of management.

As I already pointed out, the fulfillment of the plan of chemical industry is adversely affected by a variety of factors. All the more we must highly appreciate the effort of workers in those enterprises which solved the existing problems successfully. This involved for example the reconstruction of the furnace for manufacture of ceramic frits at Melnik; surpassing of planned output by Fosta Postorna; production of dioctyl phthalate and anthraquinone by the Urz plants; increasing production of rutile titanium dioxide at the Prerov Chemical Plants; production of a new type of ammonium calcium nitrate at Lovosice; doing away with the production lag at Duslo Sala which was not caused by the enterprise itself, and so on.

In the next period of this year, all economic production units must focus their attention on the fulfillment of the following tasks: meeting and surpassing the export targets; to promptly insure raw materials supply; finally, to make most effective use particularly of the imported raw materials in order to meet the production targets both in terms of value and structure.

The responsible ministries and organs have already solved a number of problems related to the adequate raw materials supply of production sectors. The measures already adopted will significantly back the responsible effort of work collective in overcoming production losses particularly with reference to products which have considerable impact on the operations of allied sectors.

VHJ of chemical industry in both republics pay great attention to the regulation of work of their research centers, to work of innovators and compre-

hensive rationalization brigades on the most efficient use of raw materials and also on the enlargement of the products assortment, modernization and rationalization of presently employed production processes.

The results achieved in recent years indicate that purposeful procedures lead to desired goals. We are gradually succeeding in reducing our dependence on imports and producing important materials through which our chemical industry participates in the innovation process in all sectors of the national economy. The successful application and use of acrylate copolymer dispersions in construction for example almost triples the service life of facades, while reducing maintenance costs at the same time. Likewise, the introduction of radial tires production on the basis of a Czechoslovak patent reduced by 8-10 percent the consumption of fuels in the operation of motor vehicles.

Among our achievements we must mention also the development and manufacture of synthetic poromeric hide Barex for upper part of shoes which resulted in the reduction of imports of natural hides, primarily kip leather. We have developed and made preparations for production of the innovated (softer) type Barex 720 which matches the best foreign material for shoe upper parts.

We could refer to a number of specific contributions of chemical industry which represent millions of foreign exchange savings for the national economy. Among them for example are Plastizol sealant for automobiles or the new type of gasoline- and oil-resistant polyvinylchlorid foil, Ropoplast, which matches the highest foreign standards; start of production of N-Hexan in the Chemical Plants of Czechoslovak-Soviet Friendship at Litvinov and Slovnaft; production of auxiliary preparations for textile industry at Usti nad Labem and others.

These examples demonstrate the active approach of workers to the problems of increasing efficiency of the Czechoslovak economy by way of direct exports of chemical products or by replacing imports of raw materials primarily from the capitalist states, but mainly by contributing to the indirect exports through other sectors of the national economy.

The achieved results to which the scientific research base of chemical industry significantly contributed must be appreciated. At the same time, however, it is necessary to further increase this activity. This is necessitated by the steadily rising and more demanding needs of the national economy. This is one of the ways which will to a considerable extent eliminate the risks in the fulfillment of tasks specified by the state plan. Under the conditions of chemical industry, this is the biggest source and possibility for coping with the demanding tasks of further building of the developed socialist society.

WAGES, PRODUCTIVITY IN CONSTRUCTION DISCUSSED

Prague SVET HOSPODARSTVI in Czech 22 Nov 79 pp 1-2

[Article by Engr Ladislav Kostal, Czech Statistical Office: "Productivity and Wages in Construction Industry"]

[Text] The problems of the CSR construction industry resulting from the long-lasting shortage of certain materials, failure to sign agreements on time or delays in subdeliveries and shortcomings in management were further aggravated by extraordinary unfavorable weather at the beginning of this year. This had an impact also on the development of wages and labor productivity in the first half of 1979.

The total amount of wages paid to the workers in construction organizations controlled by the CSR government (1.7 percent) failed to reach the growth rate anticipated by the annual state plan (2.9 percent). A major change took place in the structure of wage funds between the shares in the economic results and wage funds earmarked for premiums and bonuses (the shares were reduced by 10 percent, while premiums and bonuses increased by 2.4 percent). The total of workers' wages increased less than last year -- by 0.7 percent only.

Moving workers' vacations from the summer months to the period of unfavorable weather in January and February will help partly reduce the loss in working time during the year. With approximately the same number of calendar days as in 1978, the number of days of vacation taken increased by 13.8 percent in the first quarter and by 7.7 percent in the first half of this year. This was reflected also in the higher amount of wages paid as vacation compensations. In comparison with 1978, they increased by 15.4 percent in the first quarter and by 9.0 percent during the first half of 1979.

The average monthly wage of workers in the construction enterprises controlled by the CSR government was Kcs 2,795 which was Kcs 43 (1.6 percent) more than in the same period of last year. The annual plan provides for a 2.3 percent increase in the average wage and 4.4 percent increase in labor productivity. While the relation between the average wage increase and labor productivity increase was unfavorable in the first quarter, it generally coincided with the annual plan in the second quarter of 1979:

Quarter	Labor Productivity		Average Monthly Wage	
	Reality	Index	Reality	Index
Org. controlled by CSR govt	1979	1978 = 100	1979	1978 = 100
total	in Kcs		in Kcs	
1st	31,164	96.5	2,769	101.9
2nd	42,940	104.2	2,821	101.2
1st 2nd	74,116	100.9	2,795	101.6

Labor productivity in the construction enterprises controlled by the CSR government reached only 77.9 percent of the planned target in January and 97.4 percent in February. Likewise in April, this indicator fell by 0.3 percent short of the goal. Even by surpassing the plan in the remaining months of the first half-year, this drop at the beginning of the year was not made up so that labor productivity for the first half year was by 1.9 percent lower than the plan had specified.

In the organizations managed by the CSR government the average wage increased more rapidly than labor productivity in January and February. Although the relation was more favorable during the March-June period, the increase in labor productivity amounted to only 0.9 percent and the increase in the average monthly wage to 1.6 percent for the entire half-year.

There was a bigger discrepancy between the labor productivity and average wage increases in the organizations supervised by the CSR Ministry of Construction. Contrary to the state plan which had specified a higher -- by 2.4 points -- increase in labor productivity than in wages (labor productivity increase 104.7 percent, wage increase 102.3 percent) the opposite development took place: the average worker's wage increased by 1.4 percent, while labor productivity increased by only 0.1 percent.

In other branches, there was a more favorable development in the Silnice [Highways] national enterprise, where the level of labor productivity and average wages came close to the indicators specified by the state plan. The 0.7 points lead anticipated by the state plan for the average wage increase over the labor productivity increase was slightly (by 0.3 points) surpassed in comparison with last year, the average wage increased by 2.3 percent and labor productivity by 1.3 percent.

The relation between labor productivity and average wages did not reach the anticipated level in the enterprises supervised by the Ministry of Agriculture and Food. Contrary to the state plan which had anticipated a 2.4 points lead of labor productivity over the average wage increases, the average wage increased by 1.1 points more than labor productivity.

The okres construction enterprises failed to meet (approximately 96.6 percent) the planned indicators of labor productivity and wages. Yet the lead of labor productivity increase over wage increase was only by 0.4 point below the target specified by the state plan.

The overall increase in the average monthly wage of workers in all construction organizations managed by the CSR government amounted, in comparison with the same period of last year, to 1.7 percent and coincided with the increase in labor productivity. In the CSR Ministry of Construction, CSR Ministry of Agriculture and Food and Silnice national enterprise blue-collar workers' wages increased more than labor productivity. Only in the okres construction enterprises the labor productivity increase surpassed by 1.9 points the average wage increase.

10501

CSO: 2400

GERMAN DEMOCRATIC REPUBLIC

CROP, WEATHER REPORT PUBLISHED FOR NOVEMBER 1979

East Berlin FELDWIRTSCHAFT in German Vol 21 No 1, Jan 80 p 48

[Article by Dr D. Krumbiegel, GDR Meteorological Service, Central Weather Bureau, Potsdam]

[Text] The Weather in November 1979

Except for temperatures being clearly too mild at the end of the month, daytime average air temperatures deviated but slightly from normal values. The very frequent rains were heavy only in the first 10-day period. The duration of sunshine stayed below normal.

Only on 1 and 14 November, subnormal temperatures occurred by 6 or 3 to 4 K respectively. Until 25 November, most days were slightly too cold. Then the temperatures became very mild, from 3 to 7 K above normal. Daytime maxima during the first 10-day period came, regionally or locally, up to 10°C. At the end of the month maxima rose widespread to from 10 to 14°C (locally even to 18°C). For the rest of the time maxima lay below or around 5°C. There were only a few nights in the first 10-day period and at the end of the month when there were no ground frosts at all in the plains of the entire GDR. During the rest of the time there were, locally or widespread, mostly light ground frosts (down to -5°C). There were a few days (12, 14 and 23 November) when locally minima were recorded of between -6 and -9°C.

Only on 11 November the entire area of the GDR was without precipitation. Abundant and incessant rains with daily volumes of around 5 mm or between 5 and 15 mm (locally, up to 20 mm) fell up to 8 November and once again on 15 and 18 November. The smallest rain volumes came down in the first half of the third 10-day period. The higher mountains got snow several times that stayed on the ground. On summits the snow during the second 10-day period reached a depth of from 10 to 40 cm. By the end of the month, the snow almost completely disappeared again in the mountains. Snow fell in the plains on 8 and 13 November, which locally led to a temporary formation of a thin snow cover.

Temperature Data for November 1979 according to the Chief Climatological Office, Potsdam

1. Daily Mean Air Temperatures and Deviations from the Norm

Schwerin	3.9°C	-0.2 K	Erfurt	2.9°C	+0.1 K
Neubrandenburg	3.5°C	+0.1 K	Leipzig	4.1°C	+0.4 K
Potsdam	3.7°C	+0.1 K	Goerlitz	3.5°C	+0.3 K

2. Mean Precipitation according to Bezirke

Rostock	56 mm = 119%	Halle	53 mm = 136%
Schwerin	58 mm = 123%	Erfurt	66 mm = 138%
Neubrandenburg	58 mm = 141%	Gera	54 mm = 135%
Potsdam	72 mm = 167%	Suhl	81 mm = 137%
Frankfurt/O	73 mm = 183%	Dresden	80 mm = 163%
Cottbus	72 mm = 167%	Leipzig	61 mm = 142%
Magdeburg	57 mm = 133%	Karl-Marx-Stadt	64 mm = 119%

Soil and Crop

Surface soil temperatures in the first 10-day period and the last 5-day period still reached values around 5°C during the daytime. During the rest of the month, that threshold value was no longer exceeded. Especially from 11 to 26 November, night frosts penetrated the soil for a few centimeters. That was especially true of the southern half of the GDR, where depths of frost to as much as 10 cm were recorded locally, in some cases even down to 15 cm. Subsoil temperatures dropped relatively evenly at the end of the first 10-day period but rose once again in the last days of the month. The 5°C-limit was crossed downward at a 50-cm depth only locally or temporarily. On 30 November soil temperatures at a 50-cm depth lay between 4 and 7°C (+1 to +2 K), at a 100-cm depth, between 5 and 8°C (-1 to +1 K). Often lasting a long time and having a low intensity, precipitation was absorbed well and with no major losses by the soil. This brought a strong increase of ground water and clearly reduced the soil moisture deficit. On the average, the ground water under the turf at the depth of 100 cm rose by from 40 to 70 mm.

Field Capacity Deficit below Turf, Depth from 0 to 100 cm, in mm

	31 October 1979	30 November 1979
light soils	- 80 ... - 150	- 30 ... - 50
medium soils	- 80 ... - 150	- 50 ... - 90
heavy soils	-100 ... - 210	- 55 ... -160

Persistent subnormal surface soil temperatures precluded soil biological processes. That meant the preconditions were poor for improving the beds and for nitrogen mobilization. The increase in moisture generally improved the working conditions of the soils. But especially during the first half of the month, work was hampered on heavy soils by reduced trafficability due to the soils' being temporarily soaked and saturated. Yet these disadvantages did not last long because the lower strata could absorb water

well. Ground frosts did not interfere much with the field work.

Daytime average air temperatures crossed the 5°C limit locally on a few days in the first 10-day period, and they did so widespread by the end of the month. This together with the frequent ground frosts reduced the vegetation potential almost completely. As there had been so little rain in October and the winter crop had come up unevenly, the pre-winter development was not at an optimum. Least affected by this was the winter rye because, in comparison with other varieties, its temperature requirements are low. The weather's positive effect on the hardening and the improvement of the frost resistance of crops may have been partly canceled by the transition to very mild weather at the end of the month. Late produce was slightly damaged by the frost, ornamental plants more so.

The course of the fall temperature makes 23 November the end of the 1979 vegetation period for the plains and 25 November for the coast. Thus, while the start of the vegetation period was about normal, it ended circa 15 days earlier than on the longtime average.

The sugar beet harvest and winter wheat cultivation were completed locally during the first 10-day period, and during the second 10-day period they were completed in most regions. The fall furrow was drawn throughout the entire month. Partly lumps were formed here on heavy soils, and more traction was needed. There were hardly any suitable conditions for applying herbicides for the winter crop. When they were used, cultural plants at times turned yellow. The grazing period by and large came to the end around midmonth. Occasionally, young cattle was still found grazing into early December. Almost for the whole month, very favorable conditions existed for cooling aeration in large silos and storage areas. Temperatures there were generally reduced to values between 3 and 6°C. The mild weather by the end of the month militated against aeration measures because night temperatures hardly ever dropped below 5°C.

5885

CSO: 2300

KEY 1980 CROPS SPECIFIED

East Berlin FELDWIRTSCHAFT in German Vol 21 No 1, Jan 80 pp 3-5

[Article by E. Lange, graduate agronomist, GDR Ministry for Agriculture, Forestry, and Foodstuffs: "Priorities in 1980 Crop Production"]

[Text] Last year's results are being analyzed these days and weeks in all the LPG and VEG collectives and in the cooperative crop production departments and their cooperation partners.

A thorough and critical analysis of results, involving all cooperative farmers and workers, male and female, together with the elaboration of the consequences and conclusions for our further work, will help form in the collectives the requisite aggressive positions for the fulfillment of the still higher tasks and targets posed under the 1980 economic plan, the last year of the current five-year plan.

A Great Contribution to Improving the GDR's Economic Efficiency through Socialist Competition

The key and priority problem continues to be to develop the complex intensification of crop production and to increase and stabilize yields, especially in grain, potatoes, sugar beets and livestock feed products.

That is the basic condition for the growing contribution needed by agriculture and the foodstuffs industry to further improving our country's economic efficiency. To that end the many still available reserves have to be fully exhausted with the greatest sense of purpose. Those reserves are found in particular in overcoming unjustified imbalances in yields as among various acreages and between the LPG's and VEG's and the cooperative crop production departments as well as in surmounting the uneven scientific-technical production level all-around.

A priority concern for all collectives must be to make intensive use of every square meter of soil, to do everything necessary for improving the fertility of the soil, to insure an exemplary farming culture and carry on resolute struggle against any losses, so that everything grown will become efficient supply to the highest degree.

As in all other enterprises, so also in the LPG's, VEG's and cooperative crop production departments, after having received the state planning quotas for the 1980 plan, the competition programs are being worked out and issued.

Socialist competition continues to be conducted under the proven slogan: "A great benefit from every mark, every hour of working time, every ounce of material!" The competition programs intend to prepare objectives which can be affected concretely by individuals or collectives and help obtain high and stable yields from every square meter of soil, further elevate the economic effectiveness of science and technology, and reach a higher technological production level; significantly improve the utilization of available technology and all basic assets; insure a rational and thrifty handling of all material and financial funds; tap further efficiency reserves through a rational use of the social labor capacity and make the work of the cooperative farmers and workers more productive; and achieve the largest output through the lowest input and a noticeable reduction in costs.

To implement the demanding 1980 plan tasks and the targets of the competition programs, we must pay great attention, in socialist competition, to attaining high labor morale, more order, security and discipline, the full exercise of personal responsibility and the conscious dedication of each individual.

Special attention should be paid to promoting the various youth initiatives in socialist competition and to the consolidation of existing and the formation of new youth collectives.

Increased Grain Production

An important contribution to improving the GDR's economic efficiency lies in increasing our grain production, in particular by fulfilling and over-fulfilling the planned quotas on all acreages. Special attention must for that reason be paid in socialist competition to the proper cultivation and fertilization of grain and to crop protection, and all conditions must be created for a radical reduction of any kind of losses by a long-range and thorough preparation and systematic implementation of the harvest.

Necessary however also is gradually to expand grain acreages over those of last years, and this within the scope of the possibilities arising from the systematic reduction of the potato acreage and, while fully assuring the rough livestock feed requirements, by making major livestock feed acreages available for grain cultivation.

What matters, therefore, in this year's spring cultivation is to carry out the sowing of summer grain with an eye to the wintering damage and other damage of the winter grain in such a way that the planned expanded grain acreage is fully used. In suitable cases, one might also use for cereal production acreages that had been properly set aside for forage rye.

Expanding our grain production presupposes a more systematic intensification of our livestock feed production on acreages and pasture land so that our bulk forage requirements are absolutely assured in volumes and quality.

That is facilitated by an accelerated and broader implementation of our scientific-technical progress in bulk forage production and by the further qualitative development of cooperation among the LPG's, VEG's and the cooperative crop and animal production departments. Increased bulk forage production, adequate supplies proper as to volumes and qualities, while gradually reducing the main livestock feed acreage, and the most efficient utilization of bulk livestock feed must be made into the priorities of the systematic work of the crop and animal production cooperation councils.

It is necessary to develop, by concrete tasks and measures, various initiatives of the collectives in socialist competition in the field of bulk fodder production and marketing, with the aim of obtaining high and stable yields with the least amount of losses and optimum animal production from bulk fodder, and of greatly improving the efficiency of livestock feed and animal production.

The priorities here are: The use of every kind of pasturage and a maximum extension of fresh forage; further improving the structure of major forage and catch crop forage cultivation by growing types and varieties that have a high yield, including the expansion of lucerne and catch crop produce cultivation and the growing of frost resistant catch crops; enhancing and stabilizing silo maize yields in major and secondary storage; abiding by optimum harvesting deadlines and raising the mowing frequency on pastures and for field fodder; and expanding the regular silo storage capacities and an accurate organization of the harvest and of ensilage for radically reducing canning losses.

All collectives involved must more strongly be interested and involved in noticeably improving the energy concentration and the quality of bulk forage all-around.

The use of straw for fodder has lost none of its importance. To that end, all possibilities must more consistently be used than they were last year, including the full utilization of pelleting capacities and straw dried naturally, because that is tantamount to gaining more acreage for expanded grain cultivation.

We also can and must tap considerable reserves in, in principle, technically drying green fodder of the best quality.

For hay production that is properly mechanized, in terms of dry ensilage production and preparatory cold aeration equipment, favorable weather periods should be chosen.

Further Advances in the Potato, Vegetable and Fruit Production

Last year's potato crop offers fine conditions for further progress in supplying the population with a good grade of eating potatoes and for further stabilizing the seed crop production. All the more worthwhile will thus be to prepare the seed crop well and the proper implementation of cultivation and all maintenance and plant protection measures, with special attention to be given to the systematic growing of early potatoes and the production of eating potatoes for long-term 1980-81 storage.

The priorities in vegetable production continue to be perfect irrigation, a disciplined abiding by planned acreages according to varieties, and more of a self-supply in the villages.

Utmost Care for the Sugar Beets

Unsatisfactory sugar beet yields in 1979 are enough of a reason for critical analyses and far-reaching consequences. No effort must be spared to reach the plan quotas in every sugar beet area this year. It calls for taking the necessary measures on each and every lot and for purposefully organizing the sugar beet growing in terms of qualities and cultivation periods, and for significantly improving the interest and responsibility on the part of the collectives involved.

Here one should especially insure the optimum setting of crops and further improve the level of skill on the part of the mechanizers by preparing the crop far-sightedly, so that the crop will suffer but the smallest degree of loss under the various weather and soil conditions.

Plan Fulfillment of Oleaginous Fruit and Special Cultures is of Economic Importance

Be it winter rape, poppy or mustard, legumes, medicinal plants, herbs or tobacco--everything is needed in the quotas planned for.

Acreages set aside for them must, indispensably, be used for them, and the care given to these cultures must be greatly improved in order to assure the state plan in the qualities required.

Thinking More in Terms of Qualities

In the absolutely necessary improvement of the quality of our crops are found great reserves for our industrial and economic effectiveness. A special priority is the consistent implementation of all conceivable measures for fighting weeds, which applies to grain as much as to winter rape, poppy and elsewhere.

But also in choosing the time of the harvest, in the harvest itself and, especially, in the processing and storage, much more attention has to be paid to the quality of the products.

GERMAN DEMOCRATIC REPUBLIC

MEAT SUPPLY SHORTAGES ALLEVIATED

West German Commentary

West Berlin DER TAGESSPIEGEL in German 13 Jan 80 p 31

[Article by Michael Mara: "Raising Pigs in Private Households Is Back in Style Again--GDR Meat Supply Is Unstable--Private Livestock Raisers Close Supply Gaps." A translation of the Magdeburg VOLKSSTIMME article discussed below follows this commentary]

[Text] Soon there will be time again: the so-called annual Schlachtfeste [slaughtering days] will take place in February in GDR villages. Neither the enforced collectivization of agriculture in 1960 nor the gradual transition to industrialized large-scale production could make a dent on that tradition. On the contrary. Most farming families in the countryside will not do without their Schlachtfest. In the villages and small towns of the GDR and also at the outskirts of larger towns it is in style again to raise pigs in private households or even several of them and other fat stock. Not last because of state promotion measures, as Magdeburg's SED paper VOLKSSTIMME joyously announced recently, "especially individual pig raising has in recent years shown a development by leaps and bounds."

There is a sound reason for the state's interest in as large a number of such "households" of cooperative farmers and rural workers as possible but also in "nonagricultural livestock raisers" like small garden plot holders and settlers: "socialist agriculture" is not in the position to provide adequate meat supplies for the GDR population. The reason for it lies in inefficient animal production. (By way of comparison: the productivity of GDR animal production in 1976 lagged behind that of the FRG by roughly 14 percent, and the labor productivity of GDR agriculture in toto, based on foodstuff production per full-time worker, only reached approximately 61 percent of the FRG level.)

Moreover, the rapidly increasing meat consumption in the GDR has presented its agriculture with great problems (annual per capita consumption rose since 1970 from 66 to 87 kilogram). Meat supply is not always stable.

The population often complains about supply gaps. Meat quantities produced in private households therefore, according to VOLKSSTIMME, are of "enormous economic importance."

These "impediments" consisted mainly in that the executive boards of the agricultural production cooperatives (as much as many functionaries) had their reservations on private households and, for example, not always let them have the sucklers they needed. Meanwhile such "impediments" hardly any longer exist. As an example, the dairy couple Mueller, employed with the animal production LPG in Dingelstedt near Halberstadt, privately raises six pigs--two for domestic slaughter and the rest "on fattening contract for delivery to the meat combine." "That, simply, is part of being a cooperative farmer," Mrs. Mueller insisted.

As an incentive, all private cattle breeders who sign fattening contracts with a state-owned meat combine and meet them on schedule and at the proper volume get monetary bonuses in addition to what they charge. Some villages meanwhile have private households of respectable size which yield those who run them considerable profit. Abandoned cooperative stables are efficiently used by the private livestock raisers as "co-operative installations," and livestock feed is grown on residual, vacant cooperative lots that lay fallow before. The pigs of private households--which increased from approximately 600,000 in 1976 to more than 800,000 in 1978 and should soon reach the million mark--often also get feed that actually ought to go to the LPG pigs. The SED appears reconciled to such abuses. After all, the cooperative farmers with their individual households as well as all other private livestock raisers are making an "important contribution to supplying the population," a tribute paid by NEUE DEUTSCHE BAUERNZEITUNG, which is published by the SED Central Committee.

Pork Supply, Schwerin Bezirk

Magdeburg VOLKSSTIMME in German 20 Dec 79 p 3

[Article by E. G. Woehler: "With Regard to Some Problems of Pig-Raising in Private Households in the Bezirk and to a Reserve Supply To Fulfill the Main Task"]

[Text] You may not believe it but it is the truth: Statistically speaking, the whole city of Magdeburg is being supplied with pork that is being produced practically on the side in our bezirk. This volume of nearly 20,000 tons of fat stock, you ought to know, this year comes out of individual pigsties in Magdeburg Bezirk and thus amounts to a magnitude of enormous economic weight.

In addition there is the meat that comes from the approximately 80,000 household butcheries per annum and goes directly into domestic larders. This relieves the economy in several respects. For one thing, social

assets need not be resorted to and, furthermore, livestock feed reserves can be used which a courtyard and garden provides. And the outcome contributes to ever better supplies in meats and sausages.

Increase to More Than 12 Percent

Supported by many promotional measures, it was particularly in individual pig raising that we have seen a development by leaps and bounds over the recent years. Compared with 1976, when 6.6 percent of the pork produced in our bezirk came from households, the figure came to 10 percent in 1978 and this year even to more than 12 percent.

Here individual needs evidently meet with social interests, reason enough to advocate the further extension of this "hobby-type production." That also is the reason why exactly a year ago the Politburo, at the ninth SED Central Committee session, found it "necessary to point out that all impediments in the development of the cooperative farmers' households should be eliminated."

Impediments in recent years mainly were that not to everyone who wanted to raise a pig a suckling pig could be made available. That has significantly improved this year, as we learned from Dr Heinz Dietrich, departmental director in the Magdeburg meat combine. He bases that on the fact that the meat combine has signed over 115,000 fattening contracts (approximately 40,000 more than in 1976) and that he himself, in contradistinction to 1978, has hardly seen any examples where anyone was denied any sucklers.

An Information Gap

VOLKSSTIMME in this context followed up a letter from someone in Hohendodeleben who had claimed the opposite was true, and we found there merely was an information gap and merely by approaching the community office his problem could be solved. In Hohendodeleben alone, 170 fattening contracts were concluded in households this year, with the sucklers coming almost exclusively from the local animal production LPG.

Inhabitants who are not members of a cooperative can turn to the communal council or directly to the authorities of the meat combine in the kreis. They will get a suckler in 4 weeks or so--this at least in Wanzleben Kreis to which Hohendodeleben belongs. The Wormsdorf pig breeding plant is a partner of the Wanzleben meat combine.

If, as we must assume, the highly increased requirements for sucklings could be satisfied almost without problems, it is mainly due to that, since the middle of last year, not only fatted pigs but sows as well were contracted for by the meat combine. It came to 9,545 sows up to 31 October 1979, and more than 60,000 sucklers of them were again handed over to individual livestock raisers.

The Weak Point

It would, however, be an illusion to imagine that this takes care of the supply in sucklers for once and for all. In that supply situation there continues to be a weak point. It lies in the fact that most of the time the agreements made between the meat combine and the animal production enterprises about supplying sucklers are still loose ones. In most cases the animal production LPG's and VEG's hand over for individual use only those sucklers they themselves do not need or the ones that are produced in excess of the contracts with other breeding enterprises.

That makes it absolutely necessary for the meat combines to make binding commitments to and possibly even contractual agreements with certain LPG's or VEG's in the territory concerning the supply in sucklers in line with planned fattening contracts and with the help of the kreis councils. That then will give us the guarantee that also in the years to come cooperative farmers and workers will get the sucklers they need and our economy can meet increasingly better the meat consumption as it rises year after year.

5835

CSO: 2300

REACTION TO REORGANIZATION AT MAJOR INSTRUMENT WORKS

Budapest NEPSZABADSAG in Hungarian 13 Dec 79 p 5

[Article by Peter Lovasz: "'Factory Replacement' in Esztergom"]

[Text] Let us start by saying that, even with the quotation marks, the above title is both precise and imprecise at the same time.

On the one hand, the title is correct because, according to technical and economic calculations, in a mere three years the Labor Instrument Works [MIM] replaced approximately one-half of its product line; by 1981 almost the entire remaining half will be replaced by more advanced products. It is also correct because the upper and middle level management positions of the enterprise have been filled with new people for the past year and a half; also, because 180 former members of the administrative staff are now manual workers. Above all, it is correct because a new attitude has taken hold in a factory, one that resulted in an improvement of the earlier, below average enterprise performance to reach the standards of the best.

On the other hand, the title is misleading since, in the final analysis, the Labor MIM remained the same factory: it preserved those virtues it possessed for a long time, those that provide an opportunity for renewal. Among them are the love of work and the ability to accept the requirements of progress.

Complete System

Let us start at the beginning by talking about the events which took place a few years ago, in 1976. This was the period when the concrete outlines of the development plan of the Ministry of Agriculture and Food Industry, the National Technical Development Committee and the Ministry of Metallurgy and Machine Industry were formulated. The plan was aimed at the development of instrument supplies for the production systems introduced in agriculture. Since the Labor MIM was and is making mostly agricultural instruments, in addition to medical and environmental instruments, the obvious decision was to assign the production of agricultural laboratories to this enterprise.

It took about one year to develop the laboratories and organize production. As a result of joint efforts by the enterprise and central authorities, at the end of 1979 there are 13 soil analysis laboratories operating in the country. Each of them is capable of analyzing soils to the plot depth over an area of 400,000 hectares and providing data on soil fertility. These laboratories are complemented by other analytical systems developed jointly by the Labor MIM, the Boly State Farm and the Martonvasar Research Institute, which supply data for practically all aspects of crop cultivation.

Most of the new products were introduced in 1978, i.e., when direction of the factory was already taken over by the new leadership. Mihaly Modi was named director general. Speaking of things to come, he outlined a promising future:

"These instruments represent merely an intermediate stage of our development. We wanted to make complete systems and we were presumably successful in doing so. Last October we decided to develop the "big system," to use factory jargon. This means a family of instruments which supplies data on the entire process of agricultural production, from the soil to the meat. The first variant of the big system has been completed; one already has been sold to the Soviet Union and the other will be tried out at Bobolna."

A similar process applied to other products of the enterprise; the time for replacement has arrived just about now. Almost 120 products have been discontinued and more will be discontinued in the future. They will be replaced on the production line by new products, the results of development based on international cooperation. The enterprise is continuing to build production and trade relationships with Soviet, GDR, Austrian, Italian, Yugoslav and U.S. partners.

All of this sounds beautiful, one might even say, fabulous. The question arises, however, as to the reasons behind these fabulous achievements. Mihaly Modi and his "team," brought in at the start of 1978, did not find the kind of conditions at the enterprise which could provide the basis for rapid and smooth implementation of the necessary changes. There have been obstacles, including some major ones. The transformations have been accompanied, and in part are still being accompanied, by vehement passions, resentments, occasional mudslinging and uproar in the whole factory. Things are not yet at an end, however, and will not be for quite a while. How this has all happened can be seen from the following brief story remembered by Mihaly Modi:

"I was here for only a very short time when one of the factory managers came to me and confronted me rather bitterly, saying 'I heard you want to fire me.' This was quite awkward because, although there was no intention of firing him, the manager was in essence correct. In agreement with others, I considered him unsuitable for the job he held at the time. It is, however,

very difficult to find words to convey such an opinion, especially with regard to a man who spent more than 20 honorable years in the factory. In his own way, he was working to the best of his ability; his 'only' fault was his inability to adapt to changing conditions."

The achievement of economic success required adaptability on the part of management and a similar attitude in the enterprise as a whole. Striking the right tone was sometimes successful and sometimes, perhaps, unsuccessful. The fact is that the economic leadership, the party organization and the megye party organs evaluated the performance of 200 leaders, factory managers, department heads and deputy department heads within the Labor MIM.

The Principal Question

Karoly Barta, named to the post of party committee secretary at the enterprise in 1975, relates events as follows: "In 1975-76 the party organization of the enterprise thoroughly evaluated the situation of the enterprise and the reasons behind the deficient performance at the time. An overall plan for the implementation of changes was prepared. It included development of the product structure combined with reevaluation of the cadre situation within the enterprise. The shift in product structure has started but the factory leadership of the time was reluctant to implement cadre policy plans, thereby delaying the solution of economic tasks. This in spite of the fact that the size of administrative staff (1,100) was obviously too large relative to the total payroll of the enterprise (slightly over 3,000). Factory managers, plant managers and other middle-level managers were clearly unable to handle their tasks. The quality of organization was low, the quality of products weak; as a result, both wages and profits remained low."

"The cadre development program was ready; after the assignment of new top management, all that remained was to implement it," explained Karoly Barta. "Representatives of the party organization, economic leaders and trade union officials held discussions with each and every worker in management positions. Some of them were confirmed in their position, for others, we looked for new assignments. Some were persuaded to retire while they were able to do so under honorable conditions. They would have failed in their new tasks. In their place we brought in new people. We have had, and continue to have, some doubts. In these cases we put people on one year's probation. We stated clearly that they must prove themselves within this period. If they work out successfully, they will get the job on a permanent basis; otherwise, they will be replaced. Just recently we discussed the matter of two managers: one has done excellent work and so he is going to stay; the other will leave."

Certainly, it is not pleasant to have to work under constant pressure. Nevertheless, this was the only way. The choice of people to carry out these assignments was of decisive importance. Good choices are proved out by successful performance; bad choices will always result in trouble. The

enterprise started to carry out economic tasks whose successful completion necessitated such a painful operation. The whole process involved a great deal of agony. There is no instrument to show suitability and ability for leadership in a concrete place at a concrete time. It is difficult to battle passions and feelings with rational arguments when it comes to personal matters."

Incantations Are Not Enough

"The situation was similar when we reduced our administrative staff," continued Karoly Barta. "The program was discussed with the trade union and the economic leadership. Everyone was informed at production meetings and conferences. The plans were known in every corner of the factory. Each of the 180 people in question was offered two jobs within the enterprise or outside of it. Those who accepted the offer stayed with the enterprise; those who did not have left. The least we can say is that this did not go down without acrimony.

We tried to take good care of everyone. As far as conditions permitted, we paid a great deal of attention to employees whose jobs had been eliminated. Out of 180 people, there were only 2 that insisted on staying at their old jobs and had valid reasons for protesting against the change. The action has achieved a dual purpose: on the one hand, nobody was hurt in his interests as a human being and a worker more than was bearable; on the other hand, this radical shift of leadership and staff resulted in the whole enterprise concentrating its efforts on the successful shift of products."

"Manual workers had to be persuaded about the need for introducing new products and the necessity to do their job much more carefully," continued Karoly Barta. "People have a frightfully strong attachment to well-tried methods. I would not have believed it had I not been part of the effort that led to the acceptance of these changes. But we were successful. There are a hundred examples, but one is especially dear to me personally. We found that the time needed to develop the first specimens of new products (the so-called pilot production runs) was too long. Development people were leisurely working on each new instrument. This was not right and we pointed it out. Engineers and skilled workers belonging to the KISZ offered to try to reduce production times. At the present time this team is producing three times as much per year as they did before.

The economic results proved us out. Just this year, productivity increased by more than 15 percent, calculated at comparable prices. Our profit reached 10 percent of sales. Our wage levels are way above the average for the instrument industry. The latter represented a very important factor to complement our other arguments; in fact, without it we could not have made progress. Because incantations are not enough. Also, we are continuing what we have started. We will make new products and we will give up obsolete ones. We will expand our exports (11 million rubles and 3 million dollars

this year). Improved performance will lead to further wage increases. Despite earlier and still continuing resentments we can safely state that we have the support of the workforce."

This is the story behind the tale. Presumably, there is no need to comment further.

9164

CS0: 2500

HUNGARY

SOLTESZ REVIEWS ACHIEVEMENTS, TASKS OF METALLURGY, MACHINE INDUSTRY

Budapest FIGYELO in Hungarian 19 Dec 79 p 6

[Article on address by Istvan Soltesz, minister of metallurgy and machine industry: "The Situation and Tasks of the Metallurgy and Machine Industry"]

[Text] Istvan Soltesz, minister of metallurgy and machine industry, delivered an address on 17 December 1979 to a conference of managers in enterprises belonging to the branch regarding timely problems of development in the industry. In his introductory remarks he briefly evaluated the main characteristics in the development of the economy in 1979, and then he turned to the expected results of the metallurgy and machine industry under the Fifth Five-Year Plan.

Among other things, the minister stated that the plan goal for metallurgy under the Fifth Five-Year Plan was a 38 percent growth, but the expected fulfillment will be less because of the delay in putting into operation the Danube Steel Works converter steel plant.

During the plan period the volume of production in alloyed and special steel will rise by 40 percent, and of ferro-concrete and rolled cable (hengerhuzal) by 60 percent. The manufacture of further processed products will increase by more than 30 percent and of metal structures by 50 percent. Newly introduced products will improve the product structure of the branches; for example, filler rods, welding wires, and electrodes, bearing steel, storage racks, light and heavy steel structures. It can be seen from the above-listed results that in this area the sub-branch is fulfilling its task. In the metallurgy of nonferrous metals the volume of production is increasing and the selection of products is improving by virtue of the reconstruction that have been carried out and the realization of new producer departments. The volume increase in copper and copper alloy semiprocessed goods is twofold, and in heavy metal strips and rods 2.3 times as compared to the 1975 level. Steel and nonferrous metallurgy is fulfilling the plan task both in ruble and dollar relations. During the plan period the average annual rate of development according to the plan was 1.4 percent, and actual development 2 percent. In respect to dollar export we planned a yearly average growth of 8.4 percent, the rate of expected development is 13.7 percent.

Selective Development

In analyzing the prospects for plan fulfillment in the machine industry, Soltesz stated that an average annual growth rate of around 5.1 percent is expected instead of the 6.3 percent planned. Production growth in the first 3 years of the plan exceeded the goal, but in the past 2 years the development of the branch slowed down in response to central measures. Within production--in harmony with plan tasks--the communications and equipment industry increased, while the manufacture of machinery and machine equipment and the ratio of the sub-branch and metalware industry decreased. The expansion of production in products that are marked for dynamic development was favorable during the plan period, their ratio in production is expected to come to 40 percent. We have started--although the rate is still not satisfactory--the reduction in the ratio of products marked for retrodevelopment. Manufacture of products marked for limited development decreased by only 10 percent, while the volume of production in products marked for retrodevelopment decreased about 40 percent. We are counting on fulfilling the selective development concept in the area of products marked for elimination.

Regarding machine exports, the minister said that the Fifth Five-Year Plan called for a nonsocialist export fulfillment of 3.9 billion dollars. At current prices this would mean about a 3.3 times increase (at unchanged prices 2.3 times). It became evident in the first year of the plan period that under the basically changed circumstances of international trade the adjustability of our product structure and the level of our market and price work would not permit us fully to carry out the extremely forced task. Considering results achieved thus far, we expect to fulfill trade in the value of 3.2-3.3 billion dollars, which means an increase of 2.7 times as compared to the trade of the base period.

In the period between 1970 and 1980, dollar machine imports increased more than tenfold. But the KGM [Ministry of Metallurgy and Machine Industry] enterprises used only 36 and 60 percent thereof.

Following his prognosis for plan fulfillment, the minister analyzed the development of branch productivity and economic efficiency. Production expansion was achieved along with a decrease in the personnel of metallurgy and machine industry enterprises. In contrast to the 2.5 percent personnel increase planned over 5 years, metallurgy realized a personnel reduction of about 4 percent. The machine industry had a personnel reduction of 3.5 percent over a 5-year period as compared to the plan for no change in numbers. Aside from a few exceptions, however, personnel management of KGM enterprises is still marked by spontaneity.

On the basis of profit and specific indexes, management efficiency in the plan period shows an appropriate direction of development in metallurgy in accordance with economic policy requirements. In recent years, a capital upswing exercised a favorable effect on efficiency. Its contribution to the national income declined until 1977, but has been moderately rising since then. In the machine industry, efficiency developed favorably in the beginning of the plan period but unfavorably in the past 2 years. Following the initial improvement, equipment efficiency has moderated in the past 2 years, and it will decline to the 1976 level this year, it is expected.

Regarding 1979 development, the minister said that the manpower earnings of the enterprises declined this year. A role was also played in this by the moderation of production growth. This year metallurgy is counting on maintaining the level of personnel. But the number of employed will decline by 0.7 percent. Deriving from this, live work productivity will increase by 4.5 percent as compared to the previous year.

Activity in the past period and the successful work of the enterprises were retarded by various management and leadership problems. The leaders' attitude does not follow flexibly the changes that have occurred in the requirements system of the economy. The minister emphasized that consistent accountability is neglected and excessive liberalism and lenience is evident even in respect to those who commit serious faults.

An important role was given in the address to an evaluation of the KGM's 1979 activity. A 3 percent growth rate is expected, exceeding the planned 2 percent production dynamics in metallurgy. As a consequence of the moderation in consumer demands, domestic sales will decline as compared to 1978. The provisions for the more important metallurgical products, excepting pig iron production, will be fulfilled by Hungarian enterprises. The overfulfillment of the plan for rolled goods production also contributed to making possible the export to capitalist markets of more than 1 million tons of rolled goods.

Moderated Rate of Development

In response to the decline in domestic consumption, the growth in machine industry production is also moderating more than expected. A development of 3 to 3.5 percent is expected as compared to the planned 4 percent. The decline in the growth rate among the sub-branches is differentiated. As compared to last year, there has been a particular moderation in the development of electric machines and furnishings, but a production increase in equipment and communications. For the first time in years, the production increase in the machine industry did not exceed this year the industrial average.

The minister devoted great attention to an analysis of export. He said that within the branch ruble exports are growing most rapidly among machine products, but it will be below the plan. Of special importance among socialist export

obligations are deliveries related to the Moscow Olympics. The volume of socialist metallurgical exports is declining, due to a lower than estimated level of assortment exchanges.

Metallurgy will realize 40 percent more in dollar exports than in 1978, and the machine industry 25 percent more. These are not minor results for in nonruble trade the volume of exports rose by about 14 percent. Under the Fifth Five-Year Plan, the machine industry will fully meet its obligations for the first time ever. In addition to fulfilling its quantitative tasks, it also placed greater emphasis on the economy of the export structure.

The regulators stimulated our enterprises more than before to export primarily those products which are economic to manufacture and market.

The minister emphasized that one of the weaknesses also of the KGM enterprises is in the observance of contractual discipline. One proof of this is that in 1978 they paid 1.4 billion forints in fines because of contract violations.

Soltesz also gave an account of those experiences which the enterprises acquired in supervising the production structure according to the technical-economic criterion system. A number of enterprises carried out their work of grading with excessive caution, and few enterprises made concrete proposals for the elimination of less efficient production, or of the causes. An adequate progress in meeting the requirements was retarded because of a lack of modern thinking appropriate to the new situation.

Not only in the process of modernizing the product structure can we observe less than desirable progress but also in enterprise organization. By our experiences, the enterprise structure is excessively unjointed, the chain of management too long, and the information and incentive system is not modern. Up to now the partial organizational results could not exert adequate effect on generally improving the enterprise organizational level and increasing the efficiency of the economic organization.

Soltesz also pointed out that the ministry itself did not turn out to be adequately prepared to solve tasks in the improvement of the organizational and leadership level.

Cost Management Reserves

In the latter part of his talk the minister spoke of the branch production tasks for 1980. He turned to those economic regulators which will influence in 1980 the production of the metallurgical and machine industry enterprises. He also spoke of the problems which arise regarding these regulators in the planning work.

In evaluating the enterprise ideas worked out for 1980, he pointed out that they lag behind the demands conceived in the economic plan vis-a-vis the branch. The greatest strain is evident in the nonruble trade export volume where the enterprises have set a goal of nonruble exports 17 percent less than called for in the economic planning guide. He also emphasized that the forced rate of export growth cannot be accompanied by neglect for economy requirements.

The minister also spoke of the fact that the domestic trade enterprises and the machine industry enterprises evaluate differently the development of the consumption that may be expected by the population. According to the KGM enterprises, a 0.5 percent increase in production for next year is justified to meet domestic needs, whereas according to domestic trade it will be necessary to have a 4 to 5 percent increase. It is the view of the ministry that a better satisfaction of the demand for consumer items is a justified requirement.

In the machine industry, investment ideas are in accordance for the first time in a number of years with the estimate materials of the economic plan. This is a positive phenomenon, but the ratio of imported machinery planned for the new, starting investments is still high.

In speaking of inventory management, the minister emphasized that there is a need to change the enterprise attitude that strives for excessive security inventories and for an excessively technical-centered concept of inventory planning. By 1980 those measures which were undertaken this year will apparently have their effect.

The minister analyzed the profit outlook for enterprises in the branch under the 1980 regulatory system, and he stated that every enterprise will experience greater difficulty in attaining and increasing the profitability level. A great reserve for profit increase is afforded by prime cost decrease, and it is intolerable that the increase in the operational costs of the enterprises should exceed the development dynamics of production. For years now the rise in nondistributed costs has exceeded the change in receipts.

In the concluding portion of his address, the minister provided information on the present state of the preparatory work on the Sixth Five-Year Plan and the requirements put on enterprises in working out the medium-term plan.

6691

CSO: 2500

AIMS OF AGRICULTURAL REGULATORS EXPLAINED

Budapest NEPSZABADSAG in Hungarian 28 Nov 79 p 10

[Article by Miklos Villanyi, deputy minister of finance: "The Agricultural Regulatory System"]

[Text] In harmony with economic goals we must also provide in agriculture more vigorous incentives to increased efficiency in management, the formation of a production structure that better serves food supply and agricultural raw material requirements, export goals, and the intensification of export economy. For the sake of all these things, agricultural regulators are also under constraint to undergo modification in various areas.

We had to develop such incentive relations as provide better stimulation to greater performance and to the improvement of quality and economy. We had to reach a point where those state farms and cooperatives which longstandingly show above-average management results receive a greater share than heretofore in material and moral recognition.

All these requirements must be constantly realized in a way that will result in efficiency improvement and a better adjustment of the agricultural production structure to the altered economic conditions.

The Producer Price System

The further development of the domestic industrial producer price system and the change in import prices have significantly influenced the development of the prices for equipment and materials used in agriculture. In addition, in order that the costs of agricultural production should increasingly reflect the expenditures, it was necessary to reduce the extent and to limit the scope of agricultural supports. The total supports extended to building and plant areas have been reduced by about one-third, and supports for machinery acquisitions are declining to a greater extent. Supports for the purchase of machine parts and protein fodder have been terminated, and the budgetary allowances for reducing herbicide prices and certain fertilizers have declined somewhat.

Thus agricultural production costs have approached the actual industrial or import price level. An approximately 11 percent increase in the producer (purchase) price level of agricultural products counters the rise in costs. With the rise in producer prices, our goal was not only to counter the increase in costs but also to moderate unjustified differences in the profit content of the prices.

Therefore, the rise in the purchase price of plant products--with the exception of several branches--is of lesser extent than the rise in production costs. But in livestock breeding, on the other hand, the rise in purchase prices exceeds, in general, the increase in costs.

In order to attain our goals, it would have been necessary to reduce supports to a greater extent and to alter the purchase price ratios more significantly but our possibilities were limited by a number of factors, that is, the level of consumer prices, world market prices, a backward technology requiring higher expenditures between large scale and small scale farming.

With the taxation of large agricultural farms--according to present practice--we wish to promote the attainment of a number of goals. By withholding a part of the net income, we shall moderate the magnitude of income from subsidy type revenues that vary from farm to farm because of production conditions. The new orders will serve better than heretofore to keep the increase in personal incomes within the planned limits, to use manpower more efficiently, to make the incentive relations more favorable, and to develop the budgetary relations of supplementary activity the same as in other branches.

The goal of the land tax continues to be the withdrawal of a part of the additional income deriving from the varying production capabilities of the arable lands. The total will not change, we shall continue to refrain from taxing the weakly productive lands, and the tax on average or somewhat inferior lands will be reduced. The taxation method we have used thus far will be changed in that the tax rates including the progression will be determined by cultivation branch or cultivation branch group (ploughland, fruit, vine, field and pasture) instead of by the average gold crown value of the total land area in the use of the large farm.

Experiences with taxation of gross income in the producer cooperatives do not show any considerable stresses. The magnitude of the tax has developed more proportionally in accordance with the load-bearing capability of the farms, and a portion of the subsidy-type incomes has been centralized in such a way that a more rapid rate of development could be assured from the additional revenues resulting from more effective management.

Since the price and support system which determines the formation of revenues has been the same up to now on state farms and producer cooperatives, the placing of their taxation system on common bases also became a timely

matter. In the future, the state farms will also calculate their revenue tax paid from profits on the basis of their gross income, that is, total profits and work payments.

Nation-wide, the total tax has remained unchanged but the measuring system has been somewhat modified. In the lower ranges of gross revenues--which essentially corresponds to the work payment portion of the gross revenue--we have substantially reduced the tax rates. This also means that for large farms with lower revenues, the tax is reduced.

Revenue, Income Regulation

The tax system regulating the development of personal income has been significantly changed. On state farms and producer cooperatives enough difference has only remained as is justified by producer cooperative (property, membership, occupational) characteristics.

On state farms the experiences with the wage-bill control system used by enterprises were at first favorable. But the production increase requirement prescribed for the increase in the wage-bill has led in recent years to where, in making development decisions, emphasis has been placed on changes that would bring about a great increase in production with a low wage ratio instead of less expensive, more profitable solutions. Thus it has come to be a brake on efficiency growth.

The method of personal income increase used thus far in the consumer cooperatives has served appropriately one of our main goals, the planned development of incomes. In recent years, however, there has been a strengthening of several such economic and social processes as had to be acknowledged in the further development of the regulatory system.

From the aspect of regulation the basic problem of maintaining the cooperative gross revenue incentive was that in dividing the gross revenues, appropriate ratios should be developed between personal income and the total sums serving cooperative development goals. Financial regulation influenced this with a rise in taxation on income above the defined extent. Thus the difference in earnings between the producer cooperative and the industrial workers was reduced in accordance with the prescriptions of the Fourth Five-Year Plan. Since then also, income development follows the goals and limits defined in the plan.

The distribution of personal income according to work performance and depending on the magnitude of the gross revenues remained in the cooperative sphere of authority, but the changes in this area are significant. As the industrial-type technologies became more general, the traditional wage forms were replaced by payment systems of stricter work norms and performance pay. Parallel to this development, the year-end supplementary share, which depends on the magnitude of the gross revenue, declined by one-half in 5 years. Therefore, the goal of regulation--in harmony with efficiency requirements--is to strengthen the relationship of personal income and profit in gross revenue.

Payments and wages during the year can be increased, tax-free, to various degrees depending on the work-payment level. The well-known disadvantages of average wage regulation are moderated by various allowances. The tax-free extent of year-end shares--depending on the results--may extend from 0 to .4 percent of work payments depending on the size of the profit and the work-payment level according to the per person balance. Those cooperatives which paid a greater share than this for personal income as year-end shares may continue to put the difference into the share fund, but they may also decide, if they wish, to use it for increasing the work-payment level. Thus by raising profits, the personal income can be increased to a greater extent, while in the case of a decrease in profits--excepting the transitional year--it may happen that the income level will decline in a given cooperative.

The role of the production tax in agriculture is unchanged, namely, to bring the tax level of nonagricultural activity to a level equal to that of enterprises engaged in the same activity. In accordance with the change in industrial producer prices, the tax rates are being reduced 30 to 40 percent. Unfavorably endowed farms may withhold, as subsidy, 70 percent of the production tax.

Agricultural Supports

Simultaneously with the development of the agricultural producer price system, the extent of the supports has been decreased, and the scope of supported production goals narrowed. As a consequence of all these things, the modification and reviewability of the support system became a necessity. In the case of building and plant area investments, 20 percent of the costs making up the implementation costs--realized over a somewhat long period of time--, the so-called basic support, came to be defined in a relatively broad scope of producer and infrastructural investments. This supplements the substantially more narrow circle of special supports for the development of production branches to promote the realization of actual production policy goals. Among machinery investments, we have retained supports of 20 percent for the purchase of tractors and 15 percent for the purchase of work machines. Support for some characteristic machine types serving production goals has declined to 40 percent.

Investments already underway, however, can be finished with unaltered support conditions, and therefore--in view of the large stock of unfinished investments--for the time being the limiting measure will remain in effect which provides that with the beginning of 1980 support documents can be granted only for investments serving the development of pork and sheep branches and plant areas.

Those operational supports which up to now have adequately stimulated the realization of ratios prescribed in the production structure plan remain in general unchanged although their extent has been in some cases modified. The milk price support--in relationship with the more moderate rise in the purchase price--has risen by 0.40 forints per liter. Beginning in 1981, supports for calves born of meat cows will be reduced from 5,000 to 4,700 forints,

and subsidies for the circulation fund cannot be justified because of cow stock increases. The 2-cent per kilogram subsidy for fattened pigs from unmodern quarters will also be terminated since it would be contradictory to efficiency requirements to maintain them.

With agricultural producer prices only average or somewhat poorer than average farms can achieve the average estimated revenue total. Therefore, we are justified to continue balancing out, at least in part, the disadvantage of farms of unfavorably endowed producers. Such farms receive a special support. For several such products as can also be produced with adequate success on unfavorable land areas a special district premium can also be given for consumer but especially for export interest. With supports development we must in the future promote primarily the development of structures which are better adjusted than before to the endowments. Such support can also be given in wider scope to the development of nonagricultural activity. For the time being, supports can also be granted to a number of large farms operating under poor conditions--primarily those afflicted by price problems or floods. On the other hand, those farms which in recent years have become stronger--among other things, as a result of supports--will not receive differentiated supports in the future.

Formation of Funds

The large agricultural farms continue to build their incentive funds in a determined order. More important modifications--in addition to the already mentioned change in the share rules--have been carried out in the formation of the reserve fund and the financing of permanent inventories.

The annual obligatory extent for the formation of the reserve fund is 10 percent of the taxed profit. A reserve fund must be built until the total fund reaches 25 percent of the total work payment and profit. An exception to this is that the members of the Producer Cooperative Mutual Support Fund build reserve funds only to 20 percent of the above. The reserve fund can be used--with obligation to repay--for purposes detailed in the decree. Without an obligation to repay, the producer cooperatives may pay 25 percent of the annually formed reserve fund into the KTA [Relief Fund for Public Institutions], and the state farms may pay 20 percent into centralized reserve funds which serve a purpose similar to that of the KTA.

The rules for forming the circulating fund and for financing the permanent inventory stocks are also changing. Both in the state farms and in the producer cooperatives, stock on hand at the given accounting point of time--stock which cannot be mobilized in the near future--must be regarded as permanent. The increment between two accounting points of time must be covered from the development fund or from credit extended for this purpose. At the time of conversation as cover for the inventory stock, in justified cases, various characteristic sources and, in the case of the producer cooperatives, the security reserve fund, and 50 percent of the existing reserve fund can also be included.

SELF-FINANCING OF STATE INSTITUTIONS SUGGESTED

Bucharest REVISTA ECONOMICA in Romanian No 40, 5 Oct 79 pp 11-12

[Article by lecturer Maria Bodnar, Academy of Economic Studies]

[Text] Self-financing is a basic principle of socialist unit activities, being an integrally merged with the qualitative aspects of economic-financial self-management. The essence of self-financing is that each individual unit covers the costs involved in its activities, from income derived by the unit, while it simultaneously obtains financial results from which it can form its own development and expansion funds and fulfill its obligations toward the state.

However, the application of measures to perfect the economico-financial mechanism imposes a new orientation toward the expansion of self-financing to other sectors of activity as well; such is the case of state institutions whose activities result in income, and whose expenses are currently being covered by the state at considerable financial costs. It should of course be pointed out at the onset that in the case of state institutions, self-financing presents some special features, resulting both from the nature of their operations and from the manner in which their incomes are derived.

State institutions conduct activities useful to the society, directed particularly toward the satisfaction of collective needs which contribute directly to improvements in the standard of living (educational, health, culture, arts, and so on). Some state institutions focus their activities on services and execution of projects, whose equivalent value is recovered from incomes received in the form of taxes or tariffs (as in the agricultural sector, district management, water management, civil navigation, metrology, customs, and so on). These state institutions are however not organized on the principles of economic management because their volumes of income do not meet in all cases the requirements of economic management; but at the same time we cannot overlook the fact that these institutions do recover through the incomes they receive, part of their own expenses for maintenance and operation.

The current method by which institutions are financed (with some exceptions), consists of turning over to the budget all the income they realize, at the same time receiving, also from the state budget, the funds they need for their operations; this system is known in the literature and budgetary practice as a "gross budget." An analysis of the present financing of institutions which derive incomes from their own activities, discloses shortcomings which are ultimately reflected on the efficiency of funds allocated from the state budget. For instance, the allocation of funds from the budget is in no way determined by the manner in which these institutions derive their own incomes, creating a situation in which some institutions do not realize these planned incomes but nevertheless receive all of their necessary funds from the state budget. At the same time, the present system for financing state institutions does not create conditions for vesting their interests in improving and developing their own activities, so as to obtain higher incomes. Given this situation, it seems necessary in the sector of state institutions as well, that the financing system should become an instrument which will cause them to improve the economic efficiency of their activities and thereby reduce the state budget effort made to cover the expenses of these institutions. At the present time, this requirement can be met by expanding the application of self-financing to state institutions which derive incomes from their activities.

Broadening the Income Base

The application of self-financing to state institutions is directly dependent on the derivation of income by these institutions, as well as on future increases in these incomes to cover a larger portion of their expenses.

Starting with the fact that the incomes of state institutions are derived from services rendered or projects executed, it seems necessary to review the expenses created by these activities, and the proportion of these expenses recovered in the prices, tariffs, or taxes that are collected. This problem arises because these prices, tariffs, or taxes do not always fully reflect the level of expenses. A clear illustration of this point is the manner in which the work of professional school students is paid by economic units during their production practice. According to the 1978 budget data, professional schools recovered from payment for the students' work only 12% of the total expenses incurred. A more detailed analysis has shown that this situation arises because the economic units in which the students carry out their practical training, calculate the rights of these students according to labor remuneration schedules for 1961-1962. If the work rendered by professional school students were to be evaluated on the basis of the projects they complete or according to current regulations, the incomes that professional schools would derive from these activities would cover nearly all the expenses for maintaining and operating the schools.

Another approach to broadening the income base of state institutions, is the development of actions which are presently self-financed, according to special regulations. We are referring particularly to institutions which are authorized to retain incomes from actions established by law, so as to cover the expenses generated by these activities. Practical experience has so far shown that the rate of incomes and expenses for self-financed activities is high, and that every year the increase is greater than that of the expenses incurred by the institution within which they operate. This discloses possibilities for developing these activities and for increasing the volume of income that is obtained. At the same time, expenses associated with self-financed actions are not established by standards or regulations, that is, by stringent economies, with the resulting trend that the incomes obtained are fully utilized; this situation is also observed in income and expense balances, which in very few cases stipulate excess incomes. Moreover, the services rendered and projects executed as part of self-financed actions use the same current delivery prices and tariffs as economic units, which also include a monetary accumulation portion (taxes on the traffic of goods, profits, and so on), although the respective activities are exempted from the collection of these funds for the state budget. These monetary funds are not clearly apparent, but are used to cover expenses. We therefore believe that to the extent to which the expenses of self-financed actions could be established and disbursed according to standards and regulations in order to restrict these expenses to a maximum, the accumulation portion could be clearly defined, and the institutions could cover their own costs, thereby achieving self-financing.

Financing Mechanism Improvements

State institutions are presently disbursing a significant volume of money to the state budget, representing more than 1.5% of the total budget income. This money is recorded under a distinct category in the state budget income.

A selective examination of the financial situation of various sectors of activity (units of the Ministry of Transportation, water management activities, professional schools, spas and recreational units and activities, the Office of Inventions and Innovations, and so on), discloses that the incomes received by these institutions could cover about 40% of their total expenses; the extent of this coverage varies between 12% and 98% depending on categories of activities. This finding demonstrates that some institutions can meet from their own incomes, a significant portion or even all of the expenses associated with their maintenance and operations. In this case, the achievement of self-financing implies the creation of a financing mechanism which will assign priority to the use of self-derived incomes to cover expenses, with only eventual differences to be covered from the budget.

Of course, the introduction of self-financing in state institutions clearly requires a number of definitions and the solution to rather important problems.

To begin with, we would have to determine the proportion of expenses which are to be covered from self-derived incomes. Given the fact that the incomes of institutions can differ from one category to another, self-financing can be applied totally (when incomes fully cover expenses) or partially (when incomes are lower than expenses).

In the case of total self-financing, situations can arise where incomes are not received in time to cover planned expenses, a situation which can create a temporary shortage of monetary resources. This can be solved first of all by disbursing only strictly necessary funds (salaries, food purchases, urgent repairs, and so on) within the limits of received incomes, with the rest of the expenses to be disbursed as further incomes are received. But when temporary shortages affect a longer period of time (more than one quarter), it would become necessary to examine the possibility of bank credits, since the guarantee of repayment consists in the services rendered or projects executed, that is, in the incomes which are expected to be derived during subsequent periods. In proposing this solution, we are also considering the fact that when an institution makes use of self-financing as part of an income producing activity, the application of bank credit to these institutions appears to be fully justified.

A more serious problem can arise when solving the failure to achieve the incomes planned in the income and expense budgets of institutions, used to plan annual expenses. We believe that this particular case must be solved only by the management collectives of the respective institutions, who have the obligation to assure that budget provisions are being fulfilled, and failing that, to take early steps to select only the expenses which are strictly necessary to the proper functioning of their institutions, using strict economies to meet the volume of incomes realized.

As indicated above, self-financing is used when the incomes of state institutions are lower than their expenses; in order to sustain their activities, these institutions will have to receive funds from the state budget in order to complement their financial means. Up to now, the funds received from the budget constituted the budgetary financing of these institutions from a certain sector of activities. But when the institutions give priority to the use of their own incomes to meet expenses, the form in which the budget allocates the difference between incomes and expenses becomes a question to be answered.

In current budgetary practice, the budget allocation of amounts which represent the difference between income and expenses is considered a subvention, and institutions receiving such sums are considered "subventioned units" from a financing standpoint. But the application of self-financing principles to some state institutions does not justify their inclusion in the category of subventioned units; the financing of these institutions from the budget should be continued, except that it will be based on budget balances (the difference between their own incomes and their expenses).

The financing of state institutions under self-financing principles could be carried out in several ways; some of them are:

Self-derived incomes could be left at the disposal of the institutions to cover various established expenses, such as: procurement of fixed assets to replace those taken out of circulation, performance of current and capital repairs, maintenance and operating expenses, and so on. The remaining expenses would be financed from the state budget as is the case at present. The advantage of this solution is that it would encourage the workers' collectives in these institutions to collect the incomes designed to cover planned expenses; but it also presents some shortcomings which could produce problems in financial activities. For instance, given the multiple and diverse expenses of institutions, it would be difficult to establish a legislative framework for the destination of self-derived funds as a function of expense categories. A number of problems can also arise during execution, when incomes are obtained without assured conditions for expense disbursement; moreover, should incomes exceed expectations, the possibility could arise of additional, uneconomical, or inopportune expenses;

Self-derived incomes could be left at the disposal of institutions as a source for covering expenses defined in the budget of income and expenses, with the difference between the total necessary expenses and self-derived incomes to be included in the plan as an allocation from the state budget. This solution is much more flexible, and has the advantage that to the extent to which self-derived incomes are not obtained, the institutions would have the obligation to revise their planned expenses; and if the incomes exceed the plan, the results would be directly reflected in the savings of budgetary funds.

The application of self-financing to state institutions requires corresponding improvements in financial planning as well. The budget of income and expenses, introduced as a feature of the improvement of the economic-financial mechanism, provides a starting point for solving this problem. What appears to be needed, is that the structure of these budgets, using financial indicators, fully reflect the mechanism of self-financing, so that the disbursement of planned expenses by institutions will first of all reflect the acquisition of self-derived incomes. At the same time, some appropriate measures are necessary to control the execution of budgets at financed institutions, in particular to insure that self-derived incomes are used first, before the funds derived from the state budget.

The suggestions above do not of course exhaust all the possible ways in which the incomes of institutions could be increased; but the application of self-financing to state institutions could constitute a financial instrument to improve efficiency, and therefore to reduce and rationalize expenses.

INCREASED RECOVERY OF SECONDARY ENERGY RESOURCES URGED

Bucharest REVISTA ECONOMICA in Romanian No 40, 5 Oct 79 pp 1-2

[Article by D. Rentea, L. Ghioca, G. Marinescu, and A. Stefanescu, of the Institute for Power Studies and Design]

[Text] The fundamental goal of the Draft of the Program-Directive for Energy Research and Development During the 1981-1990 Period and for Major Guidelines up to the Year 2000, is to achieve Romania's fuel and energy independence by the end of the next decade; according to this document, this will require the formulation and application of a number of measures aimed at several areas: development of the national energy potential by increasing the contribution of scientific research to the discovery and exploitation of new reserves; increased power production along with improvements in its structure; improved organization and functioning of the electric power system; reduced consumption in all branches of the economy; and so on. Among these, it is expected that improvements in the structure of electric power production will make a substantial contribution to assuring the energy resources needed for the country's socio-economic development during future five-year plans.

The restructuring mentioned above, whose fundamental elements are a progressive reduction in the consumption of hydrocarbons for electricity production, and a proportional increase in the use of other resources -- with continued increases in the production of electric power as a basis for the accelerated development of the economy -- represents an adaptation to the energy restrictions that are acutely being felt throughout the world, and in particular to the petroleum crisis. For instance, the use of hydrocarbons in electric power production will decrease from 39.7% in 1980, to 20 and 5-4% in 1985 and 1990 respectively; in exchange, the proportion of hydroelectric power will increase from 17.6% in 1980 to 24% in 1990 -- which implies a better utilization of the country's hydraulic potential -- while the production of coal and combustible shale will increase by 4% during the same time interval.

In addition to other sources whose use will increase considerably, as is the case for nuclear power, a significant contribution to Romania's new power production profile is expected to be derived from recovered energy resources. Their proportion, combined with solar power and other energy resources will increase from 2.7% in 1980 to 5% in 1985 and to 10% in 1990, representing more than a three-fold increase in a 10-year period*).

Resources Equivalent to One Half of Annual Lignite Production

The recovery and utilization of secondary energy resources is a specific application to the energy area, of our party's general policy, based on the concept of dialectic materialism and motivated by strong patriotism, and by an interest in the careful management of the nation's wealth and the integral utilization of all useful substances. As the secretary general of the party, Nicolae Ceausescu, pointed out during his speech to the Joint Plenary Session of the Central Committee of the RCP and the Supreme Council for Economic and Social Development, "the question of recovery and reutilization of materials is one of the questions of outstanding importance for our future development, and for the assurance of our raw material needs." The fact that at the present level of technology of consumer installations, primary energy is used with a yield of 35-40% -- the amount of unused energy being exhausted to the environment in the form of combustion gases, cooling water, and so on -- fully demonstrates the significance of the recovery of these resources; this action will directly lead to a higher index of utilization of primary energy and to fuel savings, with additional positive effects in protecting the environment.

According to some estimates, secondary energy resources in 1977 amounted to about 8.7 million tons of conventional fuel (tec), which represents approximately one half of the energy value of the lignite extracted during the same year. At the present time, 72% of this potential is being utilized (energy equivalent to 6.26 million tec is being recovered), proving that unlike other resources whose utilization still needs extensive research, such as wind or wave power, the biological transformation of carbon dioxide and of the fuel biomass, and so on, the recovery of secondary resources is not an unexplored domain. The fact that most of the applications were achieved in industry is a direct consequence of that branch's position among primary energy consumers (some calculations show that industry, including the production of electric power, consumes 60-70% of the primary energy resources used throughout the world). An illustration of this point is the distribution of fuel and thermal secondary energy resources among the major industrial branches (see table).

*) Program-Directive for Energy Research and Development During the 1981-1990 Period and for Major Guidelines up to the Year 2000 (Draft), Ed. Politica, Bucharest, 1979, p 13.

Combustible and thermal secondary energy resources in the major industrial branches (in thousand tcc).

Categories of secondary energy resources	Estimated Recovered	
1. Fuels, of which:	4435	3860
a) Coke, semicoke furnace gases	2572	2409
b) Chemical process gases	859	691
c) wastes from chemical processes (washes, dregs)	451	331
d) Agricultural combustible wastes (peels, pits)	89	52
e) Others (sludge, wastes)	80	26
2. Thermal, of which:	3880	2400
a) Used condenser steam	2687	1970
b) Sensible heat of combustion gases	998	398
c) Others (heat removed by coolants, chemical reactions)	195	34

In assessing the opportunity for recovering secondary energy resources from various installations and for applying diverse technologies, a number of factors must be taken into consideration. The first of these is the minimum value of recovery output and quantity for which recovery is economically advantageous, depending on the nature of the resource**).

A second factor is the existence or eventual location of energy consumers who can use the recovered secondary energy. This condition is generally met in the case of industrial sites which have numerous consumers of heat and electricity. The case of isolated enterprises whose secondary energy resources exceed their own needs, requires the formulation of technical solutions which allow the production of electric power and its subsequent distribution into the national power system.

Romania has obtained good results in recovering combustible secondary resources -- residual gases from the metallurgical industry, alkaline washes from cellulose plants, combustible gases from chemical combines, and so on -- and using them as substitutes for fuels to produce heat and electric power. For instance, residual gases from the metallurgical industry -- gases from coke, fluidized coke, and semicoke furnaces -- can be used at industrial sites as fuels, both for technologic needs and for thermal plants.

**) These limits were established as a result of specialized investigations, at 50 tcc/year for fuel resources; 100 tcc/year for thermal resources; $Q \times H / 500$ -- where Q is the fluid flow in kg/s and H is the superpressure in bars -- for superpressure resources; 50 kW in test stands and 500 kW in railway transportation, for mechanical energy resources.

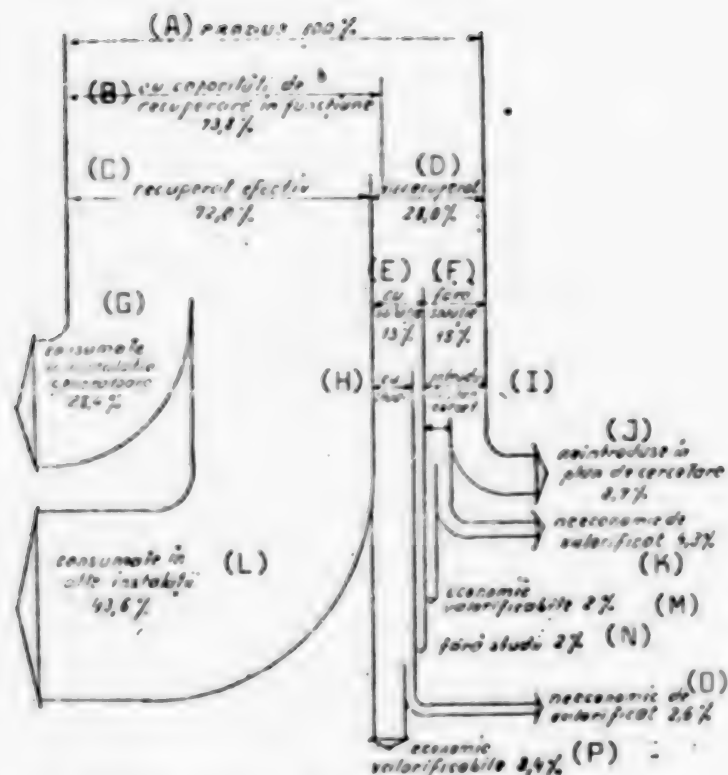
In steel making, the most representative achievement is the Galati thermal plant, which utilizes the furnace and coke gases produced at the steel combine. The particularly successful design adopted for this plant enables it to use furnace and coke gases at variable outputs in installations with high energy yields, and to heat both the combine and the city. The fuel savings obtained through the use of secondary resources at the Galati thermoelectric plant are estimated at about 800,000 tcc per year. Similar but smaller installations have also been built at other steel combines in Romania -- Resita, Hunedoara, and Calan -- where thermal plants have been placed in operation with generators of 6 and 12 MW. The other categories of combustible resources (washes from cellulose plants, combustible gases from chemical combines, and so on) are also utilized in thermoelectric plants equipped with 3.6 or 12 MW generators, depending on the amount of available resources.

Another significant approach to the exploitation of secondary resources is the recovery of heat from combustion gases, a process which is used in regenerative circuits to preheat air, or in heat exchangers to produce steam or boiling water. However, recovery for regenerative purposes alone does not make it possible to fully utilize waste heat, because the temperature of the gases exhausted from air preheaters remains rather high. But the recovery of heat from combustion gases in steam or hot water heat exchangers is a better solution, because the temperature of the gases exhausted from the exchanger is lowered to 200 °C. For this category of resources, the Institute for Power Studies and Design installed as early as 1955 at the Combine for Nitrogen Fertilizers in Roznov, a condensation turbine in which the steam produced in recovery boilers is expanded, leading to savings of 6500 tcc per year. Other solutions have been designed and applied at the chemical combines of Fagaras, Valea Calugareasca, and Navodari, where 3 MW turbogenerators with condensers and power take-offs expand the steam produced through the recovery of combustion gases. These designs for producing steam (at 40 bars) to be used in condensation turbines and variable power take-offs, were also imposed by the need to exploit available secondary resources throughout the year, producing electric power from condensation in the summer, and heating in the winter.

Research -- Basic Factor for Better Energy Utilization

At the present time, practically all categories of resources which occur in large quantities and which have a high energy potential are being utilized, representing -- as we have indicated -- about 72% of the total potential.

The integral utilization of these resources requires the formulation of optimum technical solutions, concerning in particular the recovery of energy resources of lower value, such as small forging furnaces, glass melting ovens, thermal treatment installations, and so on. A significant role in achieving these goals will be played by scientific research and engineering, which in accordance with the Program-Directive for Scientific Research, Technical Development, Introduction of Technologic Progress for the 1981-1990 Period, and Major Guidelines for the Year 2000, will be oriented



Resursele energice secundare în anul 1978 (pe fluxuri)

Secondary energy resources in 1978 (distribution).

- Key:
- (A) Produced (100%)
 - (B) With operating recovery capabilities (73.8%)
 - (C) Effectively recovered (72%)
 - (D) Not recovered (26%)
 - (E) With solutions (13%)
 - (F) Without solutions (15%)
 - (G) Consumed in generating installations (28.4%)
 - (H) Under study
 - (I) Introduced in research plan
 - (J) Not introduced in research plan (8.7%)
 - (K) Uneconomical to exploit (4.3%)
 - (L) Consumed in other installations (43.6%)
 - (M) Economical to exploit (2%)
 - (N) Without studies (2%)
 - (O) Uneconomical to exploit (2.6%)
 - (P) Economical to exploit (8.4%)

toward "the efficient exploitation of national energy resources and of new sources of energy, the restructuring of industry by increasing the proportion of processing branches which consume little energy, and the rational use and conservation of energy in all sectors of activity."

This role is evidenced by the fact that of the 28% of secondary energy resources not recovered in 1977, recovery solutions have been found for only 13%, while new investigations are needed for the remaining 15% (see figure).

Up to now, no approaches have been found to economically recover the heat from small outputs of combustion gases, either because the installations are too expensive, or because their operation presents difficulties. But conditions exist which make it technically possible and economically profitable to recover these resources, conditions which involve the duration of operation of installations, temperatures, and amounts of these resources. Such conditions are met by forging furnaces and by glass melting ovens, whose operation is continuous, and where exhaust gas temperatures are high -- 1000-1100 °C at forging furnaces and 550-600 °C at glass melting ovens; this has engendered research, the formulation of an optimum solution for recovery, and the adaptation of this solution to all types of similar installations. This optimum solution consists in equipping each installation with recuperators operating with a steam-water emulsion, the steam being separated in a common unit for all the recuperators of an installation. By building a large variety of recuperators and by changing the proportions of the steam-water emulsion, this solution can be applied to all types and sizes of furnaces or ovens without changing the installations or their operations.

In line with the above, the Brasov plants Tractorul and Autocamionul have undertaken to recover the heat from forging furnace combustion gases by producing the saturated steam needed for technical processes in the plants. The process offers the following advantages: the location of the recuperator in the forging area does not affect the technical processes; steam production capabilities are increased by 5 kg/s at Autocamionul and by 4.2 kg/s at Tractorul; and 8600 tce per year of fuel are saved at the first plant, and 7200 tce per year at the second.

The fact that technically valuable and economically efficient solutions have not yet been found to utilize a still significantly large portion of the secondary energy resources that are being produced, and that a large energy potential is being wasted, impose the pursuit of assiduous research in the future to find the best solutions to this problem. This implies that existing installations be equipped with systems for recovering secondary energy resources -- including those of lower value -- as well as the endowment of new installations with similar systems, designed from the beginning for the most advantageous use of recovered resources by proper location of consumers. The recovery of secondary energy resources is of course not an extensive means for developing the energy basis, since these

resources grow as newly constructed industrial objectives make use of technologies which release them. Despite this, their complete recovery and most efficient utilization, an intensive factor, is a sure means for conserving other primary energy resources, and contributes directly and consistently -- while reducing investments in this domain -- to fulfilling the fundamental goal of Romania's energy independence by 1990.

11,023

CSO: 2700

EFFORTS MADE TO INCREASE ENERGY RESOURCE RECOVERY RATIOS

Bucharest REVISTA ECONOMICA in Romanian No 41, 12 Oct 79 pp 11-13

[Article by Gheorghe Aldea, director general, and Alexandru Turta, researcher, Cimpina Research and Design Institute for Petroleum and Gas: "Growth of the Contribution of Scientific Research to the Utilization of Natural Resources"]

[Text] The future requirements for the progress of the national economy, as well as the implications of the world energy crisis, make development of the base of raw materials and energy constitute an essential problem of the next five-year plan, the goal being for our country to become independent from a viewpoint of fuel and energy by 1990. The fulfillment of such a provision requires, of course, measures on many planes.

The draft directives of the 12th RCP Congress regarding the economic and social development of Romania in the 1981-1985 five-year period and the long-range guidelines up to 1990 provide that in the field of the extractive industry the activity of geologic research will be intensified and expanded throughout the country and on the continental platform of the Black Sea in order to discover new reserves of crude oil, gas, coal, (combustible) bituminous shale and other useful substances. The aim will be to provide crude oil and natural gas to the national economy under the conditions of maintaining a suitable degree of security with geologic reserves. It must be pointed out that one part of the crude oil extracted in the future will come from the new deposits that will be discovered and another part from the current deposits under exploitation, at which, in the majority, improved methods for increasing the final recovery factor will be applied.

Growth in the Final Recovery Factor—a Source of Growth in Production

The fact is known that if oilfields are exploited only by means of their own energy the final recovery factor is 15-25 percent—in other words, at most one-fourth of the crude oil existing initially in the deposit can be brought to the surface and utilized. Through the use of new technologies, of the so-called methods of secondary recovery—in the main, water injection and gas injection—the energy of the deposit is supplemented with the

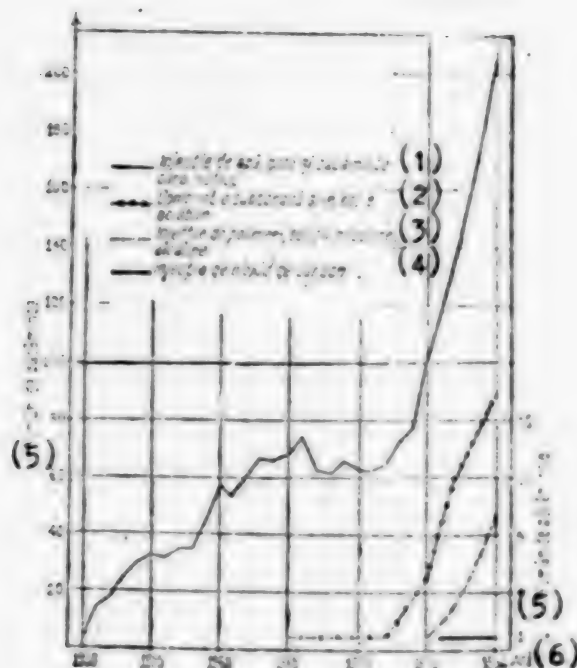
energy introduced from outside in the form of the two agents displacing the crude oil--that is, water and gas. Of the two methods, water injection, which, depending on the more favorable or more unfavorable deposit conditions, can lead to the achievement of final recovery factors of 20-50 percent, is applied more.

In the postwar period, on the basis of new research, the methods of secondary recovery were developed and improved greatly. First the thermal methods (underground combustion and steam injection) were tested and applied, and then the chemical methods of displacement (injection of water with polymers, injection of micellar solutions and injection of alkaline solutions) and carbon dioxide injection. On the instructions of the higher party and state leadership, there was drawn up 5 years ago the Program for Increasing the Final Recovery Factor at Oilfields in Romania, meant to lead to the intensification of the activity of research, technological development, and introduction of progress, thus putting us among the first countries that adopted such a program on a national scale. In practice, the situation of all deposits was analyzed within this priority program, with there being stipulated for each particular deposit the most suitable method for increasing the final recovery factor, the volume of investment work required, the quantities of fluids and chemicals, and the research tasks required. The program is updated every year.

The growth of the number of deposits at which methods for increasing the final recovery factor were applied is given in Graph 1. The large number of deposits subjected to water and gas injection is to be noted. Thus, at the level of 1978, water injection was applied at 40 percent of the total deposits, underground combustion at 12 deposits, injection of water with polymers at 2, and carbon dioxide injection at 1 deposit.

In the first half of 1979, the production achieved as a result of applying the methods for increasing the final recovery factor represented 25 percent of the total production of crude oil obtained in this period. This production is due mainly to water injection and underground combustion, as follows from Graph 2, in which the variation in the quantity of crude oil extracted due to the application of the methods for increasing the final recovery factor is given.

The implementation of the program for increasing the final recovery factor necessitated a marked intensification of the activity of preparing the deposit studies within the Cimpina Research and Design Institute for Petroleum and Gas (ICPPG). In 1977-1978, the number of deposit studies rose by a factor of 3-4 in comparison with the level in 1974. At the same time, the Ministry of Mines, Petroleum and Geology (MMPG) carried out much investment work associated with the sinking of new wells at old deposits and with the providing of installations and equipment. Unfortunately, these studies were not able to be materialized fully because of deficiencies appearing in the interim.



Graph 1. The Number of Deposits at Which Methods for Increasing the Final Recovery Factor Are Applied

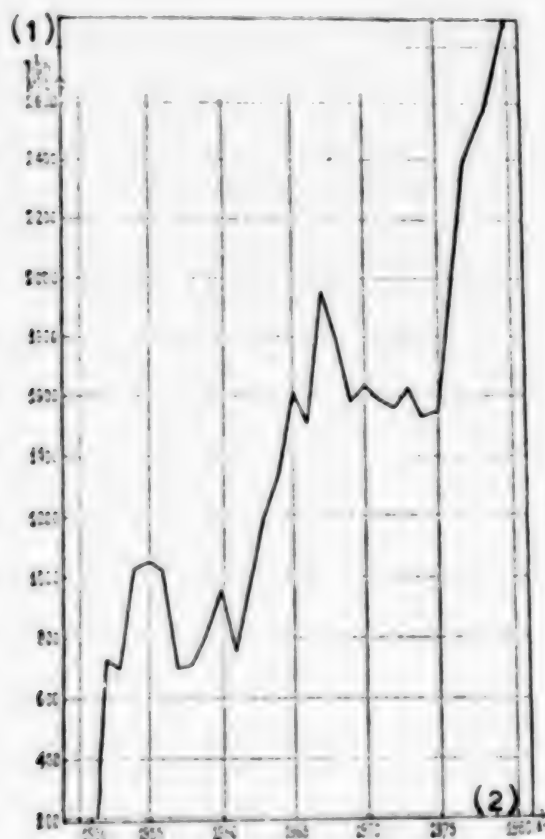
- Key:
- | | |
|---|--|
| 1. Water and gas injection and carbonate deposits | 3. Injection of polymers and micellar and alkaline solutions |
| 2. Underground combustion and steam injection | 4. Carbon dioxide injection |
| | 5. Number of deposits |
| | 6. Years |

The main cause was some lags in the area of equipment. Thus, the non-achievement of a large number of water injection pumps hindered the development of the water injection processes to the projected capacity, with significant quantities of crude oil remaining unextracted. The assimilation with a 3-year delay and the nonachievement of 10 GIP [expansion unknown] steam generators of 5 tons x 70 atmospheres led to a delay in expanding the steam injection processes. Important lags were also caused by the failure to provide the chemicals needed for the technological processes, such as crystallized polyacrylamide, hydrochloric acid, ethylene oxide and so on.

The Effect of the Modern Technologies on the Fuller Utilisation of the Deposit

The methods for increasing the final recovery factor are in different stages of development in our country. Thus, while water injection, underground combustion and steam injection are already perfected and applied industrially at the sites, the other methods, such as CO₂ injection and the

chemical methods of displacement, are still in the phase of laboratory research, along with testing at the site. Moreover, it must be said that even for the industrially developed methods the research-design-industrial application cycle is at least 4-5 years, since first a pilot plant operates at the analyzed deposit, with the obtaining of favorable results at the pilot plant (after 2-3 years of operation) leading to the expansion of the method on an industrial scale. The establishment of the most suitable method for increasing the final recovery factor for a given deposit is done on the basis of series of complex laboratory tests and after economic calculations.



Graph 2. The Rise in Production Obtained Annually at the Deposits Subjected to the Processes for Increasing the Final Recovery Factor

Key: 1. Crude oil, thousands of tons 2. Year

Underground combustion is being applied industrially at four deposits and is in an experimental phase at eight deposits. The largest process of underground combustion in the world is being performed in Romania, with our country possessing important know-how in this regard. Through the application of this method, the final recovery factor can reach 40-50 percent.

Table: The Evolution of the Final Recovery Factor Over Time

Years	Average final recovery factor (%)
1973	30.1
1974	30.4
1975	30.5
1976	30.9
1977	31.25
1978	31.55
1980	34.00
1985	37.00
1995	40.00

Steam injection is being applied industrially at two deposits and there are possibilities of expansion at other deposits. Through the application of this method, the final recovery factor can reach 30-40 percent.

Displacement of the crude oil with carbon dioxide (CO_2) is in the phase of laboratory research and of testing at one site. The final recovery factor can increase to values of 50-60 percent.

In Romania, polymer injection is being utilized experimentally at one deposit and industrially at another deposit. Through the application of this method, the final recovery factor increases by 4-5 units of percentage in comparison with water injection.

Injection of surface-active and alkaline solutions is in the phase of laboratory and site experiments. The site experiment began in this very year.

Injection of micellar solutions is a rather costly method at the present time, but one that can increase the final recovery factor to 60-70 percent, ensuring maximum recovery. At present, the laboratory research is pursuing the preparation of cheaper micellar solutions with compounds that are easier to get.

Research in the field of the exploitation of oilfields by means of mining methods (petromining exploitation) began recently. By means of petromining methods it would be possible to attain the utilization of the final recovery factor of up to 60-80 percent, but at a higher cost than by applying the other methods.

The Ciapina ICPPG is collaborating with a number of institutes here and abroad on the development of the improved methods of recovery. Collaboration for perfecting the chemical methods has existed with the Iasi "Petru Poni" Institute of Chemistry, the Medias CHIMICAZ [expansion unknown] Institute, ICECHIM [the Central Institute for Chemical Research] in Bucharest, and IPA [the Institute of Atomic Physics] in Bucharest. The thermal methods of recovery constitute the object of longstanding fruitful collaboration with the French Petroleum Institute in France.

Priority Directions of Action

The 10th World Petroleum Congress, held recently in Bucharest, brought out the fact that in order to perfect the improved methods of recovery and to establish the most suitable and efficient method for a given deposit it is necessary to have more and more complex and perfected laboratory apparatus. Regarding the economic importance of establishing the most suitable method at a given deposit, the necessity of complete tests with perfected laboratory apparatus goes without saying. The World Petroleum Congress brought up a few future orientations, as follows:

The improved methods of recovery will help substantially to provide crude oil to mankind in the next few decades;

The thermal methods are being applied industrially with success at many deposits. More knowledge that permits the more correct selection of the deposits to which these methods also based on complex laboratory tests are suited will be required in the future;

The method of carbon dioxide injection is very promising, since it can be applied with high efficiency under quite varied deposit conditions;

The chemical methods of recovery still are costly methods and must be researched and perfected further so that they are economical in most cases;

Special attention will be devoted to obtaining synthetic hydrocarbons from sand and bituminous shale, given the huge reserves of sand and bituminous shale existing on the globe.

Taking into account the trends distinguished at the 10th Petroleum Congress, the stage of development of the improved methods of recovery in our country, and the necessity of increasing their economic efficiency, so that it is possible to achieve a reduction of the cost of the crude oil extracted by means of these methods, the specialized research in our country proposes the following objectives:

The perfecting of the method of initiating underground combustion with electric heaters and the perfecting of initiation by chemical means, a less costly method;

Research on the possibilities of exploitation of sand and bituminous shale in shale by means of thermal methods;

The development of the injection of water with polymers, using both polyacrylamides and biopolymers (polysaccharides), under various deposit conditions. A rigorous evaluation of the economic efficiency of the method;

The on-site testing of CO₂ injection under conditions of greater efficiency, utilizing mainly the carbon dioxide furnished by the chemical platforms in Arad, Craiova, Pitesti and Turnu Magurele;

The determining of the potential of the chemical methods utilizing micellar and surface-active solutions, through the continuation of laboratory research and the on-site testing of the methods. At the same time, the research for devising formulas for cheaper micellar solutions will continue;

The expansion of the application of computerized mathematical methods to the guidance of the improved processes of recovery.

Since carbon dioxide injection, underground combustion, and injection of micellar solutions can also be applied as tertiary methods of recovery—for obtaining the third yield of crude oil, after the primary exploitation and the secondary exploitation by means of water injection—special attention will be given to these methods.

At present, the improved methods of recovery are being applied experimentally or industrially at 17 deposits. The number of these deposits will be 28 at the end of 1980. This number will rise to 54 in 1985 and will reach about 100 at the end of the 1980-1990 decade. Consequently, a massive expansion of the improved methods of recovery will occur in the next 10-15 years. This will lead to a rise of the final recovery factor to about 37 percent in 1986 and to 40 percent in the last decade of the 20th century.

For the further development of the improved methods and the expansion of the application to as many deposits as possible and for as rigorous laboratory testing as possible in order to establish the most suitable method for a given deposit, it is necessary for the laboratory apparatus to be supplemented with more complex laboratory installations. In addition, it is necessary for the number of chemical specialists in research and production to increase. Since a change in the structure of the profession of petroleum engineer, in the sense of bringing it closer to that of chemical engineer, is expected in the future, it is necessary for this to also be reflected in the future educational programs of the departments for exploitation of oil-fields and gasfields within the Ploiesti Petroleum Institute.

The researchers in the oil-extraction industry, aware of the necessity of increasing the contribution of scientific research to economic and social development, are fully engaged in fulfilling the tasks that come from the directives of the 12th RCP Congress, from the two directive programs concerning the activity of scientific research and the development of the energy base.

12105

CSO: 2700

CHEMICAL SECTOR DEVELOPMENT TO STRESS EFFICIENCY, RESEARCH

Bucharest REVISTA ECONOMICA in Romanian No 40, 5 Oct 79 pp 3-4, 28

/Article by Adrian Stoica, deputy minister of the chemical industry: "New Requirements for Modernized Production and Greater Effectiveness"/

/Text/ The Documents of the 12th Party Congress call for an extensive program for rapid development of the national economy, accelerated modernization of all sectors of material production, and greater economic effectiveness. In the course of this process emphasis will be placed on raising the growth rates for the products and groups of products on a high technical level that are made with the lowest possible energy inputs and maximum exploitation of the raw materials.

Reduced Consumption as an Essential Criterion for the Production Structure

The modern chemical industry is a major energy consumer, and now that we must conserve and make better use of energy it may be said that the energy factor has become controlling in the choice of manufacturing processes.

1. The main point in the policies for the coming years is greater output value per unit of energy (or raw material) consumed. In the next five-year plan the average index of use of basic raw materials and energy will be up 32-34 percent, and material outlays in industrial production will be down 5.5-6 percent. To this end emphasis will be placed on completion and general promotion of the latest chemical technologies in the fields of molecular stereochemistry and fine synthesis chemistry. The figures in the table below are conclusive for a production structure making greater allowance for the restrictions imposed by energy conservation. They show that the groups of products consuming less energy like drugs and dyes, cosmetics, and varnishes and paints will be characterized by the highest growth rates, while the latter will be minimal in the case of the energy-intensive sodium chloride products. Meanwhile definite measures are planned to modernize the manufacturing installations and processes to reduce the energy inputs considerably.

Energy Inputs and Growth Rates for Certain Groups of Products

	Energy consumed per 1 million lei of output in 1985, in tons of conventional fuel	Annual growth rate of output in 1981-1985, in percentages
Sodium chloride products	566.8	4.0
Fertilizers	236.1	5.0
Crude oil processing (refineries)	195.7	2.6
Petrochemistry	117.9	17.2
Drugs, dyes	33.9	18.1
Cosmetics, soaps, detergents	42.0	18.8
Industrial rubber articles, tires	36.8	10.2
Varnishes, paints, synthetics	18.6	17.3

The fact that priority will be on chemical use of petroleum and natural gases for as long as possible is another important factor, which also explains the development of petrochemistry. In the next five-year plan the developments begun at the Borzesti, Midia-Navodari and Brazi petrochemical combines will be completed, and the older refineries will be modernized. Developing the capacity for producing ethylene to 150.1 percent in 1985 from 1980 and its subsequent processing will raise the degree of chemical treatment of the derivatives in the respective period from 10.2 to 17.5 percent of the total crude oil subject to processing, although there will be only 98.7 percent as much crude oil in 1985 as in 1980. The major production increases planned for ethylene, polypropylene, ethylbenzene and styrene, phenol, acetone etc. constitute a considerable expansion of the raw material base needed to make products with a high use value or a high degree of exploitation such as polyethylene, processed polyethylene products, processed polystyrene products, synthetic rubber, polyester threads and fibers, etc.

About 25 percent of the total output of natural gases will be chemically treated in 1980, and 30 percent in 1985. This will make their degree of exploitation 6.1 times greater than that of methane gas in the production of nitric acid, 7.6 times greater in the production of methanol, 13.9 times greater in the production of nitrogenous fertilizers, and 27 times greater in the production of ureoformaldehyde resins.

In order to raise the degree of exploitation of rubber through its advanced processing, it is planned to produce a wide assortment of tires, conveyor belts, and molded rubber articles according to improved formulas. In the field of synthetic threads and fibers production it is planned to enlarge the assortment by assimilating varieties with improved characteristics like mod-acrylic fibers and fibers with a greater tinctorial capacity, and also by building spinning mills.

2. Reduced energy consumption is another main objective. In petrochemistry it is accordingly planned to modernize the old installations to make the fullest use of hydrogen and carbon (by exploiting the residual gases from acetylene manufacture) and to stop production in the old installations consuming too much energy. And since the chemical treatments of salt are energy-intensive processes, no major developments are provided in the next five-year plan. For the same reason the emphasis in the development of sodium chloride production is on modified processes, especially in electrolysis installations through provision for cells with a titanium diaphragm and anodes that consume less energy.

3. Emphasis will also be placed on enhancing the chemical industry's contribution to expansion of the raw material base. For this purpose the Program-Directive for Scientific Research assigns the chemical sector important tasks particularly for development of new energy sources and especially of economical processes for obtaining hydrogen as a new energy source, including that of decomposing water, for photochemical conversion of solar energy, and for production of combustion cells. Chemistry is to contribute to the development of nuclear energy in Romania by making moderators for nuclear reactors.

Meanwhile, in order to make more intensive use of domestic mineral resources and on the basis of work done in collaboration with the Ministry of Mines, Petroleum and Geology, it is planned before long to activate the mine and installations to extract sulfur from the Caliman Mountains in the form of highly concentrated granulated sulfur. The titanium and zirconium deposits have been determined that will be worked to obtain titanium concentrates and zirconium concentrates, and the potassium deposit at Tazlau will be exploited.

4. Expanded recovery and recycling of secondary material and energy resources is also an important objective:

- In order to exploit scrap rubber, it is planned to triple the capacity for retreading tires by organizing 12 new units in all areas of Romania (In 1985 about 30 percent of the domestic consumption of raw material for manufacturing tires will be saved this way). Manufacture of reconstituted rubber and powder now makes use of 18 percent of the total domestic consumption of rubber articles and will make use of about 48 percent of it by the end of the next five-year plan. The processes for converting polyethylene foils to granules and for grinding used shuttles *[navete]* into granules to be reintroduced in the shuttle manufacturing cycle will be expanded in order to exploit used plastic articles.

- For recovery of used oils, the recovery process will be expanded that is used by the special reconstituting unit in Rimnicu-Sarat, which processes the oils collected from the big consumers and the public through the PECO [Central for the Sale of Petroleum Products] units. In this way 2,200 tons, or 28 percent of the domestic consumption, were recovered in 1978, and in 1985 capacities will be provided for the recovery of 60,000 tons of reconstituted oils a year, or 41 percent of the domestic consumption. Expansion is planned at Rimnicu-Sarat and the Crisana and Cimpina refineries.

The value of the recovered products will increase from 1,926,000,000 lei in 1981 to 3,041,000,000 lei in 1985, totaling 13 billion lei for the 5-year period.

Requirements of the Shift to a New Quality

Thanks to the extensive investment program by which chemistry has chiefly benefited in this five-year plan and will continue to benefit, as well as the efforts to raise labor productivity in the existing capacities, average growth rates of 10.9 percent in the net output, 9.8 percent in the gross output, and 15-22 percent in the groups of products with intensive processing will be attained in the next five-year plan. The provisions for physical production will make it possible to meet over 95 percent of the domestic demand for the main groups of products in the future, while the per capita output will equal that of the developed countries.

The increased value of chemical products per ton of raw materials, the reduced energy inputs, and a labor productivity growth rate averaging 8.2 percent will decrease the total and material outlays in 1985 by 10 percent from 1980.

For complete and punctual fulfillment of the difficult tasks of chemistry in this and the following years, and in the light of the party secretary general's directives at the working session on improvement of the activity in this sector, a special program was drawn up that concentrates the workers' efforts on the following main objectives:

- Continuous operation of the installations in use at the planned parameters, especially the petrochemical, fertilizer and basic inorganic installations, through strict observance of technological discipline, general inspections and periodic repairs. The requirement for spare parts should be met primarily in the workshops of the units of the Ministry of the Chemical Industry, and only the particular components should be supplied by the units of the Ministry of the Machine Building Industry.

- Expediting the activation of the installations in the investments plan by granting priorities according to the current stage of the operations and by timely preparation of the investment projects for the next five-year plan, especially for 1981-1982. In the next period 17 new capacities (in Pitesti, Borzesti and Slobozia) in an advanced stage of construction will be activated, and construction-installation operations will be completed and technological tests will begin for 21 important installations (in Teleajen, Midia-Navodari, Pitesti, Timisoara, Pagaras and Savinesti).

- Reconsideration of the installations in operation from the standpoint of energy and fuel consumption in order to shut down those with high energy inputs, as well as revision of the provisions in the development plan in order to limit investments in the manufacture of products requiring high energy inputs or raw materials with a high energy content, while increasing the proportion of the products with a higher degree of processing and low energy inputs such as drugs, cosmetics, low-tonnage processed products, dyes, varnishes and paints, and chemical reagents;

- Expanded standardization of the installations and equipment in the chemical industry, accompanied by promotion of the introduction and wide-scale use of our own research and original Romanian processes and by standardization of chemical products to lower production costs and to rationalize the use of chemical products in all sectors of the economy;

- Full use of the secondary products for an additional exploitation amounting to 1.5 billion lei in 1980 and 3.1 billion lei in 1985. Moreover the measures to exploit the secondary energy resources will be intensified and will lead to a recovery of 5.9 million tons of conventional fuel in 1985 .

- Elimination of unplanned stoppages and provision for continuous operation of the installations through retraining and checking the knowledge of personnel. Strict observance of technological discipline and the manufacturing parameters will be specially emphasized.

- A considerable gain in labor productivity through expanded mechanization and automatic of the manufacturing processes and improvement of professional qualifications .

Valuable Contribution of Scientific Research

Scientific research has vital tasks to perform in the next period on behalf of Romania's accelerated socioeconomic development. For research in the chemical industry, fulfillment of these tasks primarily means intensive study of the chemical structure and bonds of the organic and inorganic compounds to develop new materials with better physical-chemical characteristics that will meet the needs of national economic development most effectively. The research collective in ICECHIM [Central Institute for Chemical Research], which has made a vital contribution to the preparation of effective measures to develop chemical production, has an important part to play in this effort.

Better use of the raw material resources, especially crude oil, methane gas, and the various salts and ores, will be emphasized in the next few years. Studies will be developed to make use of all the components of crude oil and to broaden the base of petrochemical raw materials, while use of the chemical potential of methane gas for organic products will be expanded.

For better exploitation of the nonpetrochemical raw materials, modern technological methods will be developed for chemical treatment of the by-products of coking plants and the carbon dioxide reserves for chemical exploitation of

the biomass and vegetal wastes. The Institute for Exploitation of the Biomass being organized in ICECHIM will make a valuable contribution to supplementing the traditional sources of chemical raw materials now being exhausted, with the possibilities, practically unlimited in time, that are offered by the vegetal and animal biomass.

Industrial microbiology, namely the science of producing and cultivating live microorganisms that can act as biological catalysts and can be used in directing complex chemical reactions, is a peak field of research. The studies made in this field permitted industrial production of such products as antibiotics, vitamins, amino acids, proteins and enzymes. The research program includes obtaining some amino acids indispensable to the growth of young animals and the normal functioning of the adult organism. It is planned to modernize and improve the processes for obtaining glutamic acid and lysine as well as the amino acids, threonine, homoserine and tryptophan. The studies to obtain concentrated proteins for human and animal alimentation are of particular interest. In the near future proteins will be produced on the basis of n-paraffins, and studies are being made to obtain protein yeasts on the basis of methanol and ethanol. In the field of enzymes, a method has been developed for obtaining the products subtilase Z and cellulase (illegible for zootechnical use) which when added to mixed fodders produces a more readily assimilated assortment, faster growth, and a lower consumption of fodders per kilogram of meat.

Manufacture of synthetic rubbers is another highly important field whose development has been and will continue to be strongly influenced by the progress in ICECHIM in obtaining stereospecific elastomers and clarifying some theoretical problems of kinetics and synthesis, basic research problems that have opened up a broad horizon for creating new types of elastomers, preparing and purifying monomers, synthesis of specific catalysts, studies of structure and its relation to the physical-mechanical properties of the polymer, methods of stabilizing the polymers obtained, etc. One outstanding result was the production of the ethylene-propylene copolymer, a rubber known to the world for its many possible uses.

Sustained efforts have been and will be made to obtain a widely diversified output of plastics, which have been developed intensively both in Romania and throughout the world because of their extensive uses. The subject institute has tested and perfected the technological processes for obtaining all-purpose polystyrene by using reactors with increased capacities. Obtaining grafted shockproof polystyrene and development of a technological process that will be industrialized in a big-capacity installation are outstanding achievements. In the field of polymers and copolymers, the studies will emphasize intensive expansion of the copolymerization processes to obtain vinyl chloride-vinyl acetate and vinyl chloride-vinylidene chloride, which are being obtained by some pilot manufacturing processes. Manufacture of these products in Romania will lead to supply of the economic sectors with copolymers of the micro-groove (microsion) type and special soils for packaging. In the field of polymers, research will make a greater contribution from now on to the production of polymers and copolymers with better characteristics,

heat-resistant polymers, thermoplastic elastomers used in machine building and electrical engineering, and synthetic threads and fibers with properties like natural fibers. Studies will also be intensified in the field of polymers and synthetic threads and fibers based on nonpetrochemical raw materials.

Fine organic chemistry will produce new drugs and pesticides based on small-cycle compounds, drugs from extracts of plants and animal organs, syntheses of vitamins and proteins, pesticides with low persistence, biological pest control, organic dyes and pigments for synthetic threads and fibers with better characteristics, more raw materials for the cosmetics industry, and new types of auxiliaries with good performances for the light, plastics and rubber industries.

The inorganic sector will be increasingly developed, for purposes of complete exploitation of our domestic raw materials such as the ores low in sulfur and potassium that we have in the Caliman mountains, the substances in the Black Sea and the geothermal waters, oxides of rare earths and other salts. Studies will be intensified to reduce sulfur consumption and to recover as much of it as possible from industrial processes. Chemical fertilizers and new kinds of conditioners will be produced that will be inexpensive and will have a greater effect upon the plants.

Greater efforts to carry out these provisions in all chemical units are an important requirement for the growth and modernization of production and for greater economic effectiveness.

5186

CSO: 2700

MEASURES TO REVERSE PRODUCTION DECLINE IN FISHING SECTOR

Bucharest REVISTA ECONOMICA in Romanian No 41, 12 Oct 79 pp 18-19

[Article by Marin Nitu and Virgil Tipa: "Possibilities of Growth in the Production and Efficiency of Ocean Fishing"]

[Text] The growth of the demand for protein for food for the population and of the need for fodder for animals and the continual development of fishing and processing techniques have led to a rise in the world production of marine aquatic products (fish, crustaceans, mollusks and so on) at a steady rate. Thus, a production of 53.3 million tons of fish, which represented 85 percent of the fish caught in the world, was gotten from seas and oceans in 1975. At the same time, FAO specialists state that the rational practicing of fishing with modern means can lead to the annual extraction of 110-115 million tons, without posing the problem of endangering the marine resources.

Over 90 percent of the world production of ocean fish is achieved on the continental platforms, rich in food, where the fish gather to feed and reproduce. The area of the continental platforms is small, in general, a fact that has caused, in recent years, the majority of the riparian countries to extend their sovereignty over bordering waters to a distance of 200 nm (nautical miles) from the coast. A new institution—the exclusive economic zone—with an extension of up to 200 nm from the shore, within which the riparian states are to exercise their sovereign rights over the exploitation of all resources, including the biological ones, was accepted in practice at the UN conference on maritime law. In the 1st half of 1978, there were 29 countries with passage to the ocean for which the limit of the national exclusive economic zone was 200 nm and 14 countries with the limit of the territorial sea and 21 with the limit of the fishing zone at the same distance.

The world maritime zone remaining open should be divided according to biological, technical and production criteria into big geographical zones administered by regional international fishing organizations, which would protect the reserves of fish by regulating the production activity and instituting an international system of control. In the open sea zones the

fishing is regulated at present within the framework of a number of international fishing organizations.*

An examination of the situation existing at present in the fishing zones brings out the fact that, independent of the conditions specific to each zone, it is necessary to take into account the extension of the territorial waters and the regulations proposed by the regional international fishing organizations (in general, accepted by a consensus of their members). These restrictive measures are causing, in fact, the expeditionary fishing fleets to transfer the bulk of the activity from the coastal zones to the open sea, to the zones not explored and not known thus far from the viewpoint of biological resources.

Under the new conditions, the following trends, among others, are appearing on a world level:

Cooperation by the geographically disadvantaged states with the riparian countries—especially the poorly developed ones or the developing ones—for rationally utilizing the biological resources, under mutually advantageous conditions, in order to provide protein of marine origin, both for the populations of the countries that participate in production and for the countries that do not fish but have an acute lack of food resources;

The intensification of the actions for achieving new bilateral agreements concluded by the nonriparian countries with the riparian countries, in order to obtain the right to fish in the waters under their jurisdiction;

The interest of a greater and greater number of states in participating in the regional international organizations that administer fishing in the open sea, in order to obtain advantageous fishing quotas;

The exploitation of the resources of raw materials in the ocean's open regions located outside the limits of the economic and fishing zones of 200 nm;

* The International Convention on Fishing in the Eastern Central Atlantic Ocean (CECAP [expansion unknown]); the International Convention on Fishing in the Northwest Atlantic Ocean (NAFCO [expansion unknown]); the International Convention on Fishing in the Northeast Atlantic Ocean (NEAFC [the Northeast Atlantic Fisheries Commission]); the International Convention on Fishing in the Southeast Atlantic Ocean (ICSEAF [the International Commission for the Southeast Atlantic Fisheries]); the Convention on Fishing in the Southwest Atlantic Ocean (CARPAS [the Southwest Atlantic Fishery Commission]); the International Convention on Fishing in the East Pacific Ocean (IATIC [expansion unknown]); the Indian Ocean Fisheries Commission (IOFC); and the International Organization for Fishing in the Eastern Central Zone of the Atlantic Ocean (COPACE [expansion unknown]) (See: "Tendinte Actuale in Regimul Juridic al Marilor" [Current Trends in the Legal System of the Seas], Stiintifica Publishing House, Bucharest, 1974).

The expansion of the scientific research in these zones, for identifying and determining new biological resources and in order to establish fishing methods and equipment suited to the new conditions;

The equipping of the fishing fleets with high-capacity ships capable of operating autonomously in any zone of the ocean and of practicing fishing at great depths. (A trawler for fishing down to 2,250 meters in any zone of the ocean, including the waters of the Arctic and the Antarctic, was launched in the Polish People's Republic.)

In our country, the activity of ocean fishing began in 1964, when two trawlers, the Constanta and the Galati, built in Japan, went into operation. The good results obtained by these ships in the 1964-1967 period (the annual average per active ship being 4,310 tons of fish caught), as well as the greater and greater role that ocean fishing had, constituted the basis for developing the Romanian fishing fleet. At the end of 1970, it had eight trawlers.

Subsequently, the technical-material base for Romanian ocean fishing was developed considerably, there being a transition, after 1972, from autonomous fishing (the trawlers operate, depending on the capacity of the holds, between 40-60 days in the fishing zones, where they process, freeze and store on board the fish caught, which they then transport to the base port) to expeditionary fishing (the trawlers operate independently and transfer the production of fish in the fishing zone to refrigerated cargo ships, which also perform the function of partly supplying them with fuel, water and food). On 30 June 1979, the Romanian ocean fishing fleet had 38 trawlers with a capacity of 113,429 gross register tons and 6 refrigerated cargo ships with a capacity of 57,836 gross register tons.

Ocean fishing was oriented particularly toward the exploitation of productive zones at convenient distances from the base port (Tulcea), zones becoming ones "with a tradition" in the Atlantic Ocean for our ocean fishing. Thus, in recent years, the trawlers have operated, also depending on the season, in the following zones: the eastern central Atlantic Ocean, to the west of Africa, between the parallels of 10°-26° north latitude; the northwest Atlantic Ocean, on the continental platform by the coast of North America, between the parallels of 30°-45° north latitude; the northwest Atlantic Ocean, in the zone contained between the Grand Banks of Newfoundland and the platform by the coast of the Labrador Peninsula, between the parallels of 45°-55° north latitude; the southeast Atlantic Ocean, on the continental platform by the coast of southwest Africa, between the parallels of 25°-30° south latitude (Walvis Bay); and the platform between the Barents Sea and the area of the Lofoten Islands, between the parallels of 60°-72° north latitude.

As a result of the intensification of the concern for developing the activity of fishing, the production of ocean fish rose from 8,000 tons in 1965 to 83,550 tons in 1975 and 86,638 tons in 1978, with the average annual rate of growth in the 1966-1978 period being over 25 percent.

Despite the progress achieved and although the total volume of the production of ocean fish caught rose, as is seen, by a factor of over 10, the level of production is still low in comparison with the fleet's degree of equipping and the population's needs for consumption, and a more detailed analysis brings out a number of deficiencies that influenced the results obtained. Viewed from this angle, it can be considered that the activity of ocean fishing presents, after 1970—a period that coincides with the development of the Romanian ocean fishing fleet—a contradictory situation: although the total production of ocean fish rises at a steady rate as a result of the increase in the number of trawlers, the average annual production of fish caught per trawler declines in comparison with the preceding period.

From an analysis of the data existing in Table 1, it follows that the main cause of the decline in the average production per ship consists of the fact that the supply of active time of the trawlers is situated at an unsuitable level, below that in the preceding period. In the 1971-1978 period, the actual time for fishing represented [phrase missing in original] on the average per year in comparison with the 1966-1970 period. It thus follows that the supply of time used for fishing declined greatly, even in comparison with the period of autonomous fishing, although the organization of expeditionary fishing should have led to an increase in the supply of time used for fishing and, in consequence, to an increase in production, especially because the average production per active day per ship improved, rising from 24.8 tons in 1965 to 36.1 tons in 1978. In the 1971-1978 period, if the actual time for fishing had been 53.7 percent of the supply of calendar time, which was achieved in the 1966-1970 period, it would have been possible to catch additionally a quantity of 352,600 tons of ocean fish.

Table 1. The Utilization of Trawlers in the Ocean Fishing Fleet of the Socialist Republic of Romania in 1964, 1965, 1970, 1975 and 1978

	Unit of measure	1965	1970	1975	1978
1. Existing trawlers	number	2	8	26	37
2. Active trawlers	number	2	6.3	26	34
3. Supply of calendar time, including:	%	100.0	100.0	100.0	100.0
Fishing	%	44.1	60.7	35.5	22.4
Travel	%	25.4	17.7	10.5	16.5
Supply and transshipment	%	16.7	4.6	12.1	12.6
Repairs	%	13.8	17.0	40.3	41.9
Unforeseen causes	%	—	—	1.6	6.6
4. Total production	tons/year	7,988	19,700	83,550	86,638

Source: Calculated from statistical and plan data existing at the Tulcea Ocean Fishing Enterprise.

We feel that the decline in the supply of time used for fishing, which, as we saw, is the main cause that negatively affected the volume and efficiency of the production of ocean fish, was, in its turn, caused by:

The increase in the time of stopping the ships for repairs as a result of not correlating the development of the capacity to perform repairs and maintenance with the growth in the number of ships, but also due to improperly utilizing the existing material base and not providing the spare parts;

The increase in the time of stopping the ships for the operations of transshipment, unloading and supply. In comparison with 1970, when this had reached 4.6 percent, it rose to 12.6 percent in 1978, as a result of the insufficient port material base, that is, delays in setting up wharves equipped with hoisting and transport installations with a suitable productivity and supply warehouses and cold storages with a better organization of the work. At present, due to the insufficient port material base, the operations of unloading and supplying the ships cannot be performed simultaneously, which leads to an increase in the time of immobilization of the ships;

The failure to provide the refrigerated chain that takes the fish from the ship to the consumers leads to immobilization of the cargo ships in waiting for their unloading, which causes delays in transshipping the fish from the trawlers engaged in expeditionary fishing, and to their inactivation due to exceeding their own storage capacity;

The increase in the time of immobilization as a result of defects caused by the unsuitable quality of the repairs, the unwieldly handing-over of the ships on changing the crews, and the insufficient professional training of the personnel in the engine rooms of the ships and as a result of the failure to provide spare parts;

The still high, although declining, percentage of the time for travel to and from the fishing zones, for changing the zones and crews, caused by a certain inconsistency exhibited in decisionmaking and by delays in taking care of the formalities for gaining access to the fishing zones.

According to the draft directives of the 12th Congress of the Romanian Communist Party regarding the economic and social development of Romania in the 1981-1985 five-year period and the long-range guidelines up to 1990, it will be necessary to achieve in 1985 a production of 550,000-600,000 tons of fish, including 280,000-300,000 tons in inland waters and 270,000-300,000 tons of ocean fish. In order to fulfill these great and complex tasks, besides continuing to equip the Romanian ocean fishing fleet with high-capacity trawlers capable of operating autonomously in any zone of the ocean and of practicing fishing at great depths, with trawlers that practice coastal fishing and with technical, service, and refrigerated cargo ships, special attention must be devoted to the development of the port

capacities and those for repairs, maintenance and service and the production of spare parts for ships, as one of the basic conditions for reducing the immobilization of the ships and, respectively, for increasing the production of fish per ship-year. This is a basic requirement for providing economic efficiency to this activity, at a suitable level, especially under the conditions of the continual rise in the cost of the liquid fuels used by ships.

With this end in view, we feel that at the Tulcea port base it would be extremely useful to speed up the construction of the pier that will provide for the simultaneous mooring of at least two refrigerated ships, with the daily operation of them reaching at least 500 tons of unloaded products, by providing the necessary means, and for the performance of the work of maintaining and supplying the ships at the same time as the operations for unloading the products. The creation of the refrigerated spaces needed for selling the frozen fish through the domestic trade network in accordance with the volume of production would help essentially to reduce the time of immobilization of the ships for unloading in the base port. The entry of the new port refrigerator with a cooling capacity of 46,400 cubic meters, now under construction, into operation soon in Tulcea will make an important contribution to remedying the present situation.

The proper utilization of the entire technical potential for processing the fish on board the trawlers and the obtaining of assortments with a high economic value are also of great significance for better utilizing the production. In this regard it is possible to act to assign the indicators approved by means of the state plan to each particular trawler in relation to the capacity for catching the fish and the capacity of the installations for processing them, and to establish for the trawler departmental plan targets concerning the quantity of fish that must be frozen and processed (beheaded and gutted fish, fish fillets, fishmeal, fish oil and so on). A significantly greater contribution is also expected from the research institutes, which are called upon to provide within a period of time useful to the Romanian fishing fleet the studies, forecasts and any other information that they have in order to direct the trawlers to zones rich in fish and with fish from the species with a high economic value. The more active participation, in a greater number, of scientific researchers on ships during the fishing campaigns could prove to be not without useful effects.

Regarding the ships equipped additionally for fishing in the northern zones of the Atlantic Ocean, they should be directed, in not exclusively, at least with priority, to these zones, and with a view to the self-guidance of the ships in the fishing zones and the achievement of as productive fishing as possible, it would be necessary to additionally provide them with documentary materials: fishing and navigation charts, fish atlases and others.

Since, at present, most of the immobilization of the ships occurs for repairs, it is necessary in the future to correlate as strictly as possible

the need for repairs of the ships in the present and future fleet with the capacities of the existing shipyards and the new ones expected to be put into operation in ensuing years and to establish the obligations that devolve upon the fleet and the repair yards in preparing the technical documentation, in providing the spare parts and the specific assemblies and materials, in preparing the ships for repairs, and in contracting for, determining the charges for, and accepting the work, as well as the mutual obligations of guarantee. It is necessary for the yards to be able to provide for the performance of the whole volume of repairs needed by the Romanian ocean fishing fleet within the periods established by means of the technical standards, including the repair of the refrigerating, navigation and detection installations, concomitant with the assimilation and the introduction into manufacture of the spare parts for repairing and maintaining the various types of ships existing in the fleet, through the organization of specific sections at the specialized plants. At present, the Tulcea shipyard for construction and repair of ships for ocean fishing is in an advanced phase, and along with its entry into operation at full capacity it is expected that the maintenance and the performance of the repair work on ships will be carried out in a much shorter time.

The elimination of the causes that, as has been seen, led to a substantial reduction of the supply of time for fishing of the ships and, consequently, also of the average production per ship-year is obviously the decisive condition for increasing the production of ocean fish and raising the efficiency of this activity and for utilizing the considerable investments made in this branch of the economy, thus creating the conditions needed for fulfilling the tasks regarding the continual improvement of the supply for the population.

12105
CSO: 2700

YUGOSLAVIA

ENERGY NEEDS, PRODUCTION IN 1980 NOTED

Belgrad EKONOMSKA POLITIKA in Serbo-Croatian 17 Dec 79 p 30

[Text]

Kind	Unit of Measure	Needs	Domestic Consumption	Domestic Production	Export	Import
Electric power	billion kwh	59.95	58.344	59.25	1.606	0.7
Coal	million tons	54.2	53.9	50.0	0.3	4.2
Coke	" "	3.020	3.020	3.0	--	0.02
Oil	" "	16.700	16.700	4.2	--	12.5
Oil Deriva- tives	" "	17.926	17.006	16.366	0.92	1.56
Natural gas	Billion cu mtrs	4.600	4.600	2.6	--	2.0
Gas fm coal	Million " "	250.0	250.0	250.0	--	--

CSO: 2800

YUGOSLAVIA

SIX-MONTH RESULTS IN TRANSPORTATION NOTED

Belgrade TRANSPORT in Serbo-Croatian Oct 79 pp 5-8

[Excerpt]

Goods Transit and Handling

Description	January-June		Index
	1978	1979	
			1978
1. Transportation-total (in 1,000's of tons & in millions of ton/km)			
--goods transported	107.3	118.5	110.4
--ton/kilometers	96,288.	97,371.	101.1
2. Rail			
--Goods transported	38.0	41.2	108.4
--ton/kilometers	11,030	12,345.	111.9
3. Maritime Shipping			
--goods transported	10.3	10.0	97.5
--ton/miles (in millions)	41.2	40.9	99.3
4. River Transportation			
--goods transported	10.8	10.3	95.0
--ton/kilometers	2.6	2.4	90.5
5. Highway Transportation			
--goods transported	48.3	57.1	118.3
--ton/kilometers	6.3	6.8	108.0
6. Sea Ports			
--Total traffic	12.1	14.0	115.3
7. River Ports			
--Total traffic	21.2	19.9	93.5

DECLINING, UNCOMPETITIVE POSITION OF SHIPBUILDING EXAMINED

Belgrade BORBA in Serbo-Croatian 21 Dec 79 p 2

[Excerpt] Almost 300 cooperating enterprises deliver the equipment for one ship [built in Yugoslav shipyards]. All of them establish the prices for their products themselves, not taking into consideration the position and possibilities of other partners. Various kinds of sheet metal alone cost 20 percent more on our market than on the West European market. When one adds to this the prices of other equipment, one calculates a 28.5 percent higher cost for building ships in our shipyards compared to average world prices.

According to data now available, in 1980 our shipyards will be working at only 60 percent of capacity. Ships of 820,000-ton carrying capacity will be built. An order from Liberia for six 40,000-ton tankers has also been received. Little business has been contracted for 1981. Since our shipyards have an annual capacity of 1,500,000 tons, this means that, if in 1980 they will operate at 60 percent of capacity, in 1981 they will operate at only 20 percent of capacity.

It is difficult for shipyards to do much, since personal wages are low, such that in the first half of the year there was a considerable decline in manpower.

Quite a bit more has been written in our country about the Piran Agreement [to build ships for Yugoslav shipping lines in domestic yards] that has been mentioned generally in the places involved [shipyards]. The press has noted that the agreement has been ignored or circumvented. In many cases this has created fear among shipbuilders that their docks will soon be left empty.

In fact, up to now only 20 percent of the ships built here have been for our merchant marine. If agreements and other development and renovation programs for our merchant fleet had been carried out in the spirit of the Piran agreement, 30 ships should have been built. But as it is, only 15 of the 48 ships called for in this plan period have been built.

The new medium-term period calls for the substitution of 70 vessels and the building of 30 new vessels. Our merchant fleet has 340 ships, but 178 are over 15 years old.

Domestic exporters, in future, will transport more goods on our ships and this will undoubtedly have an effect on the shipbuilding industry. At present \$220 million is paid to foreign shippers annually, which is how much our merchant fleet also earns. The Croatian budget has included 728 million dinars to make up the difference in prices of ships built abroad and in our shipyards; investors will provide 300 million dinars for the same purpose.

More than 30,000 workers are employed in our shipyards.

CSO: 2800

BRIEFS

COAL PRODUCTION PLANS--According to producers' plans, about 52 million tons of lignite, hard and brown coal will be produced in 1980. This is 25 percent more than in 1979, or about 10 million tons more. This includes about 40 million tons of lignite, or almost four-fifths of all coal production. About 11 million tons of brown coal and nearly 1 million tons of hard coal will be produced. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 7 Jan 80 p 10]

BAUXITE, ALUMINUM PRODUCTION--Plans calls for the production of 3.4 million tons of bauxite in 1980, as well as 1.3 million tons of alumina, and 204,000 tons of aluminum. In addition, 180,000 tons of semifinished aluminum and aluminum alloy products are to be produced, as well as 14,600 tons of finished aluminum and aluminum alloy products. Compared to 1979, the average production increase in the aluminum industry is to be about 30 percent. The new electrolysis plant in the Titograd aluminum combine will make possible a significant increase in aluminum production in the country. About 60 percent of total production is expected to be sold on the foreign market, so international price trends are of exceptional importance. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 4 Jan 80 p 1]

FERROUS METALLURGICAL PRODUCTION--It is estimated that 1979 steel production exceeded 3.56 million tons, or about 120,000 tons more than in 1978. In 1979, in addition, 2.45 million tons of coke were produced, about 4 million tons of iron ore, nearly 2.4 million tons of pig iron, as well as over 3.9 million tons of finished steel products which is the highest annual production up to now. However, these production figures are below the plan; the reasons for this are problems in supplying raw materials and producer goods from domestic sources and especially from imports. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 4 Jan 80 p 1]

CROATIA-PRC TRADE--Mihovil Vjelavic, president of the section on the PRC within the Croatian Economic Chamber, stressed that trade with China, especially that between China and the economy of Croatia, is declining. In 1979 only 25 percent of the planned commodity trade was achieved. Of the \$420 million worth of trade between Yugoslavia and China planned for

1979, only 38.2 million dinars in exports and 52.16 million dinars in imports had been carried out up to 1 December; in this, Croatia participated with \$9.47 million in exports (or 24.8 percent of the total) and \$11.5 million in imports (or 22.6 percent of the total for the country). The reasons for declining trade lie in the high prices of export products, imbalance of Chinese plans, failure to receive large import items from China, such as oil and coking coal, the reduced imports of consumer goods, and failure to export Yugoslav ships and other large facilities in the field of industrial and technical cooperation. Replanning has taken place, resulting in the fact that only one of the 32 Yugoslav products has been exported. For 1980 trade is expected to be reduced to \$300 million. Among the 32 items on the Yugoslav export list, ships are valued at \$50 million. Further discussion of this question will take place at the 17 January meeting of the PRC section of the Yugoslav Economic Chamber. [Excerpt] [Belgrad PRIVREDNI PREGLED in Serbo-Croatian 8 Jan 80 p 1]

KOSOVO'S USE OF LOAN--According to the social agreement on developing the private agricultural sector of Kosovo, 630 million dinars (based on 1974 prices) was foreseen in the medium-term plan to expand reproduction. Up to now banks have granted about 95 percent of these funds, which are to be used to build 1,100 mini-farms for the production of milk, 700 hectares of vineyards, 30 hectares of hothouse facilities, and 50 chicken farms. Some of these funds are to be used to purchase agricultural machines for associated farmers, but at present there are 8,780 such farms, or a little over 9 percent of all farm households in the province. Use of the funds has not been satisfactory. About 600 mini-farms, 500 hectares of vineyards, 15 hectares of hothouse cultivation, and only a few chicken farms have been built or developed or are in the process of being built. One of the essential reasons for this is the lack of organization of private farmers cooperating with cooperatives. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 8 Jan 80 p 2]

LEAD, ZINC, ANTIMONY--In 1979 about 4.1 million tons of lead-zinc ore and 90,500 tons of antimony ore were produced, as well as 112,800 tons of refined lead, almost 99,000 tons of zinc, 2,300 tons of antimony regulus, 126,000 tons of lead products and 43,300 tons of zinc products. No part of the lead, zinc and antimony industry fulfilled the 1979 plan. Because of the slow development of basic capacities, production targets in 1980 are planned which had been expected for 1979. Thus, 1980 plans call for 4.7 million tons of lead and zinc ore, 135,100 tons of antimony ore, 135,500 tons of lead, 108,000 tons of zinc, 3,100 tons of antimony regulus, 138,700 tons of lead products and 50,000 tons of zinc products. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 8 Jan 80 p 12]

CSO: 2800

END

END OF

FICHE

DATE FILMED

11 FEB '80

MAK